

# CORNELL UNIVERSITY MEDICAL BULLETIN

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OF THE  
MEDICAL COLLEGE  
NEW YORK AND ITHACA  
1922

JANUARY, 1922  
PUBLISHED BY CORNELL UNIVERSITY  
477 FIRST AVENUE  
NEW YORK CITY

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**The Annual Announcement of the Medical College and  
Reprinted Studies from the Several Departments of the Medical College  
and its Research Laboratories**

C O R N E L L  
U N I V E R S I T Y  
M E D I C A L B U L L E T I N

A N N O U N C E M E N T  
O F T H E  
M E D I C A L C O L L E G E  
N E W Y O R K A N D I T H A C A  
1922

JANUARY, 1922  
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## CALENDAR

1922

- Jan. 3. Tuesday, 9 A.M.—Christmas recess ends. Second term begins.\*
- Feb. 22. Wednesday—Legal holiday.
- March 11. Saturday, 6 P.M.—Second term ends.\*
- March 13. Monday, 9 A.M.—Third term begins.\*
- April 13. Thursday, 6 P.M.—Easter recess begins.
- April 17. Monday, 9 A.M.—Easter recess ends.
- May 27. Saturday, 6 P.M.—Third term ends.
- May 29. Monday—Examinations begin.
- May 30. Tuesday—Legal holiday.
- June 8. Thursday—Commencement.
- Sept. 16. Friday—Examinations begin for admission to the first year of all departments of Cornell University at Ithaca, N. Y.
- Sept. 19. Tuesday—Examinations begin for conditioned students and for those applying for advanced standing in the Medical College at New York City.
- Sept. 26. Tuesday—Registration..
- Sept. 27. Wednesday, 9 A.M.—Instruction begins.
- Oct. 12. Thursday—Columbus Day, legal holiday.
- Nov. 7. Tuesday—Election Day, legal holiday.
- Nov. 29. Wednesday, 6 P.M.—Thanksgiving recess begins.
- Dec. 4. Monday, 9 A.M.—Thanksgiving recess ends.
- Dec. 20. Wednesday, 6 P.M.—First term ends\* Christmas recess begins.

1923

- Jan. 2. Tuesday, 9 A.M.—Second term begins.
- Feb. 22. Thursday—Legal holiday.
- March 10. Saturday, 6 P.M.—Second term ends.\*
- March 12. Monday, 9 A.M.—Third term begins.\*
- March 29. Thursday, 6 P.M.—Easter recess begins.
- April 2. Monday, 9 A.M.—Easter recess ends.
- May 26. Saturday, 6 P.M.—Third term ends.
- May 28. Monday—Examinations begin.
- May 30. Wednesday—Legal holiday.
- June 7. Thursday—Commencement.

\*The session is subdivided into three terms of eleven, ten, and eleven weeks, respectively, and courses are scheduled in conformity with this subdivision.

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All students must be registered at the secretary's office at the opening of the session. No student will be admitted after Registration Day without special permission of the Faculty. Immediately after registration the fees must be paid at the treasurer's office.

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Any student may take the first year at either New York City or Ithaca. All students take the last three years at New York City only.

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\*Term of office (5 years) expires in 1922, the next group of six in 1923, etc. B., elected by Board. A., elected by Alumni. G., appointed by the Governor. Gr., elected by the New York State Grange for 1921-22.



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At the foundation of the Medical College the following resolution establishing a Medical College Council and determining its functions was adopted by the Board of Trustees of Cornell University.

*Resolved*, That for the purpose of making recommendations to the Board of Trustees or the Executive Committee in relation to the business management of the Medical College there be established, and there is hereby established, a Medical College Council which shall consist of seven members, to wit: the President of the University (who shall be *ex-officio chairman*), the Dean of the Medical College, and three trustees to be elected by the Board of Trustees or the Executive Committee, who shall be appointed, one for one year, one for two years, and one for three years, and their successors to be appointed for three years, and two members of the Faculty, to be elected by the Faculty, who shall be appointed, one for one year and one for two years, and their successors to be appointed for two years, and that all appointments to fill vacancies be made for unexpired terms.

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- ANDREW J. GILMOUR, M.D.,  
*Instructor in Clinical Medicine, Department of Dermatology.*
- FRANCIS WALTER GRAVELLE, A.B., M.D.,  
*Instructor in Obstetrics and Gynecology.*
- RALPH EUGENE HERENDEN, M.D.,  
*Instructor in Roentgenology.*
- MARJORIE HUPFER, A.B., M.S.,  
*Assistant in Chemistry.*
- HERBERT F. JACKSON, B.Ped., M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- HOWARD S. JECK, M.D.,  
*Instructor in Clinical Surgery, Department of Urology.*
- NANCY JENISON, A.B., M.D.,  
*Instructor in Medicine.*
- KENNETH JOHNSON, A.B., M.D.,  
*Instructor in Surgery and in Operative Surgery.*
- MORTON C. KAHN, B.S., A.M.,  
*Instructor in Hygiene.*
- JAMES H. KENYON, B.S., M.D.,  
*Instructor in Clinical Surgery.*
- JOSEPH E. KING, M.D.,  
*Instructor in Surgery.*
- WINIFRED KIRK, A.B.,  
*Assistant in Anatomy.*
- LEILA C. KNOX, A.B., M.D.,  
*Instructor in Surgical Pathology.*
- CHARLES LANG, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- NILS P. LARSEN, B.S., M.D.,  
*Instructor in Medicine.*
- ASA L. LINCOLN, M.D.,  
*Assistant in Clinical Medicine.*
- OSCAR L. LEVIN, M.D.,  
*Instructor in Clinical Medicine, Department of Dermatology.*
- HOWARD S. McCANDLISH, M.D.,  
*Instructor in Obstetrics and Gynecology.*
- JOHN F. McGRATH, M.D.,  
*Instructor in Obstetrics and Gynecology.*
- PENELOPE MARSH, A.B.,  
*Bacteriologist, Department of Surgery.*
- WALTER C. MONTGOMERY, M.D.,  
*Instructor in Clinical Surgery, Department of Laryngology and Rhinology.*

CORNELL UNIVERSITY MEDICAL COLLEGE

- HENRY R. MULLER, A.B., M.D.,  
*Instructor in Pathology.*
- CLAY RAY MURRAY, M.D.,  
*Assistant in Clinical Surgery.*
- CHARLES HALPIN NAMMACK, M.D.,  
*Instructor in Clinical Medicine.*
- THOMAS PALMER NASH, JR., A.M.,  
*Instructor in Chemistry.*
- JOSEPHINE B. NEAL, A.B., M.D.,  
*Assistant in Medicine.*
- JOSE F. NONIDEZ, Sc.D.,  
*Instructor in Anatomy.*
- JOHN M. O'CONNOR, M.D.,  
*Instructor in Operative Surgery.*
- EMIL OSTERBERG,  
*Instructor in Chemistry.*
- ROYCE PADDOCK, M.D.,  
*Assistant in Medicine.*
- S. DOUGLAS PALMER, A.B., M.D.,  
*Assistant in Anatomy.*
- GEORGE PAPANICOLAOU, Ph.D., M.D.,  
*Instructor in Anatomy.*
- RUSSELL H. PATTERSON, M.D.,  
*Assistant in Clinical Surgery.*
- ALFRED RAHE,  
*Instructor in Bacteriology.*
- DAVID RAPPORT, M.D.,  
*Assistant in Physiology.*
- JOHN H. RICHARDS, M.D.,  
*Instructor in Clinical Pathology and in Medicine.*
- HENRY B. RICHARDSON, A.B., M.D.,  
*Instructor in Medicine.*
- JOSEPH C. ROPER, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- MORTON C. RYDER, A.B., M.D.,  
*Instructor in Pathological Anatomy and Surgical Pathology.*
- JESSE F. SAMMIS, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- MORRIS K. SMITH, M.D.,  
*Instructor in Surgery.*
- WILLIAM L. SNEED, M.D.,  
*Instructor in Applied Anatomy.*
- HENRY J. SPENCER, M.D.,  
*Instructor in Medicine.*
- RALPH G. STILLMAN, M.D.,  
*Instructor in Clinical Medicine and Surgical Pathology.*
- PHILLIP STIMSON, A.B., M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- WILLIAM PETER STRAIN, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*
- FENTON TAYLOR, M.D.,  
*Assistant in Clinical Surgery.*
- SOMA WEISS, A.B.,  
*Assistant in Pharmacology.*

## CORNELL UNIVERSITY MEDICAL COLLEGE.

WALTER WELLER, A.B., M.D.,  
*Assistant in Anatomy.*

GEORGE W. WHEELER, M.D.,  
*Instructor in Bacteriology.*

ABRAHAM O. WILENSKY, A.B., M.D.,  
*Instructor in Operative Surgery.*

HERVEY C. WILLIAMSON, M.D.,  
*Instructor in Obstetrics and Gynecology.*

MAY G. WILSON, M.D.,  
*Instructor in Clinical Medicine, Department of Pediatrics.*

DAN HITER WITT, M.D.,  
*Instructor in Medicine.*

### CLINICAL INSTRUCTORS.

CONRAD BERENS, M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*

THOMAS K. DAVIS, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

CHARLES A. DRAKE, M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*

MORRIS FRIEDSON, A.B., M.D.,  
*Clinical Instructor in Medicine, Department of Pediatrics.*

ERMINIE E. GREENBERG, M.D.,  
*Clinical Instructor in Anæsthesia.*

WILLIAM V. HEALEY, A.B., M.D.,  
*Clinical Instructor in Surgery, Department of Orthopedic Surgery.*

ROBERT C. HOWARD, M.D.,  
*Clinical Instructor in Surgery, Department of Laryngology and Rhinology.*

AQUIN S. KELLY, M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*

WALTER M. KRAUS, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

GEORGE B. MCAULIFFE, A.B., M.D.,  
*Clinical Instructor in Surgery, Department of Otology.*

CLARENCE B. OBERNDORF, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

MAX S. ROHDE, A.B., M.D.,  
*Clinical Instructor in Surgery, Department of Urology.*

WILLIAM L. SOULE, A.B., M.D.,  
*Clinical Instructor in Anæsthesia.*

FREDERICK W. STECHMANN, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

JUNIUS W. STEPHENSON, M.D.,  
*Clinical Instructor in Medicine, Department of Neurology.*

GEORGE S. STEVENSON, M.D.,  
*Clinical Instructor in Medicine, Department of Psychiatry.*

JULIUS J. VALENTINE, M.D.,  
*Clinical Instructor in Surgery, Department of Urology.*

GEORGE W. VANDEGRIFT, A.M., M.D.,  
*Clinical Instructor in Surgery, Department of Ophthalmology.*

LUCIUS A. WING, B.S., M.D.,  
*Clinical Instructor in Surgery.*

CORNELL UNIVERSITY MEDICAL COLLEGE

CLINICAL ASSISTANTS.

- STEWART L. CRAIG, M.D.,  
*Clinical Assistant in Surgery, Department of Otolaryngology.*  
THOMAS A. MULCAHY, M.D.,  
*Clinical Assistant in Surgery, Department of Otolaryngology.*  
HARRY BAKWIN, M.D.,  
*Clinical Assistant in Medicine, Department of Pediatrics.*

OFFICERS OF ADMINISTRATION.

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J. S. FERGUSON, M.S., M.D., *Secretary of the Faculty.*  
J. THORN WILLSON, *Managing Clerk.*  
JESSIE P. ANDRESEN, *the Dean's Secretary.*  
JOSEPHINE GENUNG NICHOLS, Ph.B., *Librarian.*  
WILLIAM DUNN, *Photographer.*  
EDWARD MILTIMORE, M.D., *College Physician.*

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Department of Medicine.

- Chief of Clinic*  
SAMUEL BRADBURY, M.D.

*Physicians*

- WALTER H. BRUNDAGE, M.D.      NANCY JENISON, M.D.

*Assistant Physicians*

- |                           |                              |
|---------------------------|------------------------------|
| ELLIS M. BLACK, M.D.      | CONNIE M. GUION, M.D.        |
| HENRY B. RICHARDSON, M.D. | GUSTAV K. ONHOLM, M.D.       |
| LESLIE T. GAGER, M.D.     | JENNINGS S. LINCOLN, M.D.    |
| SEYMOUR FISKE, M.D.       | ARTURO MARTINEZ, M.D.        |
| DAN H. WITT, M.D.         | HAROLD STEWART BELCHER, M.D. |
| HARMON A. VEDDER, M.D.    | JEAN H. PATTISON, M.D.       |
| THEODORE J. CURPHY, M.D.  | C. M. DELVALLY, M.D.         |
| FRANCIS T. WILLIAMS, M.D. | GEORGE B. EMORY, M.D.        |
| H. H. HAMILTON, M.D.      | BENJAMIN H. ARCHER, M.D.     |
| VAN H. VERPLANCK, M.D.    |                              |

Department of Medicine, Gastro-Enterology.

*Physicians*

- |                         |                             |
|-------------------------|-----------------------------|
| ARTHUR L. HOLLAND, M.D. | HAYNES HAROLD FELLOWS, M.D. |
| SYDNEY WEINTRAUB, M.D.  | JACOB BUCKSTEIN, M.D.       |

*Assistant Physicians*

- |                            |                       |
|----------------------------|-----------------------|
| JOHN CAMPBELL HOWARD, M.D. | DOUGLASS PALMER, M.D. |
|----------------------------|-----------------------|

Department of Medicine (Diabetes Clinic).

*Physician*

- HENRY JAMES SPENCER, M.D.

Department of Pediatrics.

*Physician*

- PHILIP MOEN STIMSON, M.D.

Department of Surgery.

*Chief of Clinic*

- JOSEPH P. HOGUET, M.D.

*Surgeon*

- FENTON TAYLOR, M.D.

*Assistant Surgeons*

- |                        |                     |
|------------------------|---------------------|
| W. MORRIS WEEDEN, M.D. | WALTER WELLER, M.D. |
|------------------------|---------------------|

## FACULTY OF MEDICINE

### Department of Obstetrics and Gynecology.

#### *Chief of Clinic*

JOHN F. McGRATH, M.D.

#### *Surgeon*

WYNN LYLE FULLERSON, M.D.

#### *Assistant Surgeons*

SAMUEL SWIFT, M.D.

S. SCHMERZLER, M.D.

GERARD L. MOENCH, M.D.

### Department of Urology.

#### *Chief of Clinic*

WILLIAM A. WILSON, M.D.

#### *Assistant Surgeons*

PERRY L. HELMICK, M.D.

JOHN R. A. FLANIGAN, M.D.

MIGUEL ALVAREZ, M.D.

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SAMUEL A. MOSS, M.D.

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JOSEPH JACARUSO, M.D.

CHESTER TILTON STONE, M.D.

WILLIAM BIERMAN, M.D.

C. M. DELVALLY, M.D.

PAUL M. BUTTERFIELD, M.D.

### Department of Neurology.

#### *Acting Chief of Clinic*

THOMAS K. DAVIS, M.D.

#### *Physicians*

WALTER M. KRAUS, M.D.

JAMES H. HUDDLESON, M.D.

#### *Assistant Physicians*

GEORGE H. HYSLOP, M.D.

BEATRICE HELEN FAIRBANKS, M.D.

AUGUSTA SCOTT, M.D.

CORA HENNEN MORRIS, M.D.

FRANK R. PARD, M.D.

CLAYTON L. WOOD, M.D.

### Department of Neurology (Speech Clinic)

#### *Assistant Physician*

OLGA NEYMANN, D.D.S.

### Department of Psychiatry.

#### *Chief of Clinic*

SANGER BROWN, II, M.D.

#### *Physicians*

CLARENCE G. CHENEY, M.D.

RALPH P. FOLSOM, M.D.

JOHN T. MACCURDY, M.D.

#### *Assistant Physician*

GEORGE S. STEVENSON, M.D.

### Department of Dermatology.

#### *Chief of Clinic*

OSCAR L. LEVIN, M.D.

#### *Physician*

ANDREW J. GILMOUR, M.D.

#### *Assistant Physicians*

ARTHUR F. KRAETZER, M.D.

EMILE ROSE, M.D.

LAURENCE F. McCafferty, M.D.

WILLIAM HOWARD SCHIMPF, M.D.

ALBERT ALEXANDER MENDES, M.D.

CORNELL UNIVERSITY MEDICAL COLLEGE.

Department of Otology.

*Chief of Clinic*

GEORGE B. McAULIFFE, M.D.

*Surgeon*

THOMAS A. MULCAHY, M.D.

*Assistant Surgeons*

ARTHUR PALMER, M.D.

CHARLES DEPPING, M.D.

GERVAIS W. McAULIFFE, M.D.

CARL FORNELL, M.D.

SOL J. SELKIN, M.D.

OTIS CHAPMAN, M.D.

O. T. LEFTWICH, M.D.

Department of Laryngology and Rhinology.

*Chief of Clinic*

WALTER C. MONTGOMERY, M.D.

*Surgeons*

ROBERT C. HOWARD, M.D.

THOMAS A. MULCAHY, M.D.

*Assistant Surgeons*

ARTHUR PALMER, M.D.

JAMES A. CLARK, M.D.

Department of Orthopedic Surgery.

*Chief of Clinic*

ARTHUR H. CILLEY, M.D.

*Surgeon*

JOHN S. WARE, M.D.

*Assistant Surgeon*

IRVIN BALENZWEIG, M.D.

LESLIE BROWN, M.D.

Department of Roentgenology.

*Chief of Clinic*

RALPH E. HERENDEEN, M.D.

*Surgeon*

ALBERT B. FERGUSON, M.D.

*Assistant Surgeon*

J. CAMPBELL HOWARD, M.D.

Department of Ophthalmology.

*Chief of Clinic*

BERNARD SAMUELS, M.D.

*Surgeons*

GEORGE W. VANDERGRIFT, M.D.

CHARLES ARTHUR DRAKE, M.D.

*Assistant Surgeons*

JESSE B. STARK, M.D.

MILTON L. BERLINER, M.D.

JAMES A. CLARK, M.D.

NATHAN BERGER, M.D.

E. P. SHERMAN, M.D.

RAY R. LOSEY, M.D.

MANUEL U. TRONCOSO, M.D.

Department of Drugs and Supplies.

*Pharmacist*

GUSTAVE T. RUCKERT, PH.G.

*Assistant Pharmacist*

CHARLES LENZ, PH.G.



## GENERAL STATEMENT.

### GENERAL STATEMENT.

The Medical Department of Cornell University was made possible by the gift to the University of a commodious and fully equipped building designed for medical instruction, and by the bestowal of funds for the maintenance of a vigorous school of medicine.

The objects of this school are:

- (1) To develop physicians of the best type, and
- (2) To conduct researches into the nature and cure of disease.

The school offers educational and research facilities to all undergraduates and graduates in medicine who are properly qualified to benefit from these opportunities and who are in sympathy with these aims.

The Main College Building comprises a Medical School and Dispensary, with principal entrance on First Avenue, opposite Bellevue Hospital, and occupies the entire block between Twenty-seventh and Twenty-eighth Streets on First Avenue. The building is devoted to the Departments of Anatomy, Clinical Pathology, Chemistry, Pathology, Bacteriology, Physiology, Medicine and their laboratory equipment.

The Loomis Laboratory (founded 1886 by the same munificent hand) serves the purpose of undergraduate instruction, in connection with the laboratories in the College building. It has also been reorganized as a research laboratory, and special departments have been established in bacteriology, physiological chemistry, experimental medicine, and pharmacology.

The College Dispensary, located in the main College building, is fully equipped for purposes of instruction.

The attendance in the Dispensary averages about 400 patients daily and annually includes about 30,000 new patients. The organization is such as to bring the Dispensary into closest touch with the laboratory and research facilities of the College.

The Department of Roentgenology as well as the Laboratory of Clinical Pathology, is in direct connection with the Dispensary, and by coöperation and coördination of work their services are placed at the constant disposal of the various other departments of the Dispensary for the diagnosis and investigation of disease and for purposes of instruction.

The Library is supplied with current periodicals in German, French, English and Italian, which include nearly all the more important journals in the field of medical science, and the back files of these periodicals are fairly complete. Every effort is made to maintain a library commensurate with the needs of the College. A special reading room is provided for the convenience of students. A trained Librarian is in attendance to supply references and direct their work.

In addition to the College Library, students enjoy certain privileges at the Library of the New York Academy of Medicine, 17 West 43rd Street, the second largest medical library in the United States, and at the various public libraries of the city.

## CORNELL UNIVERSITY MEDICAL COLLEGE

**New York Hospital.**—The Medical College, through the courtesy of the Governors of the New York Hospital, has long been accorded certain privileges for instruction in its wards; but on the first of January, 1913, a definite arrangement was established between Cornell University and the New York Hospital, through the donation to the hospital of a generous fund by Mr. George F. Baker, a Governor of the Hospital, upon the condition that thereafter the pathological and half the entire medical and surgical services of the institution should be definitely assigned to the Cornell University Medical College for the advancement of its teaching and research.

By this most advantageous arrangement the University nominates the Visiting Staff of its division and the Laboratory Staff and secures the admission of its students to the wards as clinical clerks, thereby enabling the College to make a definite provision in its course of instruction and research for work in the New York Hospital. Furthermore, the Laboratory Staffs of the different departments of the Medical College are placed at the service of the Hospital for the purpose of extending its scientific work.

The hospital service thus assigned to the College comprises 100 beds. This service is exceedingly active. It includes several thousand acute and emergency cases brought in annually from a large ambulance and dispensary district.

The medical staff of this hospital assigned to the Cornell University Medical College has been organized as outlined in the departmental announcements for medicine and surgery.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in the New York Hospital.

**Bellevue Hospital.**—This hospital, located on First Avenue, directly opposite the Main College building, has 1,200 beds, and receives 24,000 patients annually.

The hospital is organized in four divisions, one of which has been placed by the Trustees of the hospital at the disposal of the Faculty of the Cornell University Medical College for medical instruction. The services thus intrusted to the College include, continuously, 90 medical beds, 90 surgical beds, 60 to Urology, a Neurological Service, and for one-half the year 54 obstetrical beds, together with equal privileges with the other three divisions, giving continuous opportunity for instruction and research in the additional wards devoted to the treatment of alcoholic diseases, tuberculosis and the psychopathic diseases. There are also available 60 beds for instruction in Gynecology by members of the staff assigned to this duty by the Cornell University Medical College.

The visiting staff of the Second, or Cornell Division is drawn entirely from the Faculty and instructors of the College, and by coöperation with the Medical Board of the Hospital this division has been organized with a view to the best interests of the patients, as well as with a view to furnishing adequate facilities for instruction. The students spend a considerable portion of the fourth year in this hospital as clinical or surgical "clerks," and during the preceding years frequent clinical instruction is conducted in its wards, as fully described under "Details of the Plan of Instruction."

## GENERAL STATEMENT.

While Bellevue Hospital is provided with an elaborate Department of Pathology of its own, the scope of the hospital work of the Cornell Division is broadened by the intimate relation existing between the laboratories of the Medical College and the medical service of the hospital. In addition to the staff provided by the hospital, the College maintains a corps of research workers and special assistants who conduct their routine examinations in extension laboratories equipped by the College in rooms adjacent to the wards of the hospital, and who consummate their major investigations in the more completely equipped laboratories of the College building.

The Professors of Medicine and Surgery are directly responsible to the University for the conduct of the instruction in Bellevue Hospital.

**Memorial Hospital.**—Through the generosity of the late Dr. James Douglas, who provided the Hospital an endowment for the study and treatment of cancer and allied diseases, the Memorial Hospital became affiliated in 1914 with Cornell University Medical College.

The conditions upon which this union was consummated place upon Cornell University Medical College the responsibility for the medical and surgical activities of the Hospital, subject however, so far as administrative action is concerned, to the approval of its Board of Managers. Cornell University Medical College is required to approve the five medical members of the Board of Managers of the Memorial Hospital and to nominate their successors in case of vacancies, and to name the medical and surgical staff, subject to the approval of the Board of Managers of the Hospital.

In accordance with these conditions, and with the approval of the Board of Managers of the Hospital, the Medical Staff has been organized as follows:

JAMES EWING, M.D., *President of the Medical Board, Director of Cancer Research, Pathologist.*

WILLIAM B. COLEY, M.D., *Vice-President of the Medical Board, Professor of Cancer Research, Attending Surgeon.*

WILLIAM S. STONE, M.D., *Clinical Director.*

STANLEY R. BENEDICT, Ph.D., *Director Department of Chemistry.*

WILLIAM A. DOWNES, M.D., *Attending Surgeon.*

BURTON J. LEE, M.D., *Attending Surgeon.*

BENJAMIN S. BARRINGER, M.D., *Attending Surgeon, Urological Department.*

DOUGLAS QUICK, M.D., *Attending Surgeon.*

WILLIAM P. HEALEY, M.D., *Attending Gynecologist.*

RALPH E. HERENDEN, M.D., *Physician to Roentgen Ray Department.*

JOSEPH P. HOGUET, M.D., *Assistant Surgeon.*

NATHAN GREEN, M.D., *Assistant Surgeon.*

FRANK E. ADAIR, M.D., *Assistant Surgeon.*

DAVID H. M. GILLESPIE, M.D., *Assistant Surgeon.*

HERVEY C. WILLIAMSON, M.D., *Assistant Gynecologist.*

LOYD F. CRAVER, M.D., *Assistant Physician.*

CHARLES J. GOELLER, M.D., *Adjunct Assistant Surgeon, Urological Department.*

## CORNELL UNIVERSITY MEDICAL COLLEGE

ARCHIE L. DEAN, JR., M.D., *Adjunct Assistant Surgeon, Urological Department.*

CHARLES W. STROBELL, M.D., *Clinical Assistant.*

FREDERICK M. JOHNSON, M.D., *Clinical Assistant.*

HOWARD F. MCCANDLISH, M.D., *Clinical Assistant.*

THOMAS L. BENNETT, M.D., WILLIAM DORAN, M.D. and H. CLIFTON LUKE, M.D., *Anæsthetists.*

GIACCHINO FAILLA, *Physicist.*

RUTH THEIS, A.B., *Chemist.*

KANEMATSU SUGUIRA, A.M., *Associate Chemist.*

ELISE S. L'ESPERANCE, M.D., *Serologist.*

JOHN C. TORREY, M.D., *Bacteriologist.*

HALSEY J. BAGG, Ph.D., *Research Fellow in Biology.*

**The John E. Berwind Maternity Clinic.**—An affiliation having been consummated between the John E. Berwind Maternity Clinic and Cornell University Medical College, the medical direction of the Clinic is placed under the control of Cornell. The medical staff including the resident and house staffs are appointed by the Clinic, only on nomination by the Medical College.

Cornell students are definitely assigned to the Clinic for practical instruction under the direction of the Professor of Obstetrics.

Cornell students having been provided for, vacancies in the student staff will be filled by appointment. Application for such assignments should be made to the Superintendent of the Clinic at 125 East 103rd Street, New York City.

**The Russell Sage Institute of Pathology.**—The Russell Sage Institute of Pathology has been affiliated with the Second Medical (Cornell) Division of Bellevue Hospital since 1913. Endowed by Mrs. Russell Sage in 1907, it has provided funds for research work in pathology and medicine. Laboratory space has been generously given by the trustees of Bellevue Hospital and clinical facilities have been furnished by the Cornell Medical Division. The Institute has constructed and equipped a respiration calorimeter and has maintained a metabolism ward adjacent to the general wards of the division. The research workers have been members of the hospital staff and have assisted in the care of patients and the instruction of students. The metabolism ward, chemical laboratories and calorimeter furnish unusual facilities for teaching the diseases of metabolism.

The staff is as follows:

GRAHAM LUSK, Ph.D., *Scientific Director.*

EUGENE F. DU BOIS, M.D., *Medical Director.*

DAVID P. BARR, M.D., *Research Fellow.*

HENRY B. RICHARDSON, M.D., *Research Fellow.*

NATHAN F. BLAU, D.V.S., *Research Assistant.*

S. F. SODERSTROM, *Calorimeter Technician.*



## GENERAL STATEMENT

**The Neurological Institute.**—By courtesy of the Neurological Institute section work in Nervous Diseases is offered to third and fourth year students in the wards and Out-Patient Department of this hospital, the students being assigned for ward work in small sections during the third and fourth years. The Neurological Institute is a hospital of considerable size, devoted to the care of nervous diseases and possessing a complete equipment for neurological examination, diagnosis and treatment.

**Psychiatric Institute, Ward's Island.**—The Professor of Psychiatry is Director of the Psychiatric Institute, which is the teaching and research center for the entire New York State Hospital system. The lecture rooms, pathological material and clinical facilities of the Institute are available for the teaching of medical students.

**Manhattan State Hospital, Ward's Island.**—This hospital for the care and treatment of mental diseases, accommodates over 5,000 patients. Through the courtesy of the Superintendent the Professor of Psychiatry is enabled to utilize this clinical material for bedside study of patients and practical exercises and demonstrations conducted in the wards of the hospitals.

In addition to the above, members of the Faculty of Cornell University Medical College hold appointments in various hospitals and dispensaries of the city, and are thus enabled to utilize for teaching purposes a great quantity and variety of clinical material. This is used from time to time as necessity or opportunity arises. The major part of the bedside and clinical instruction is, however, purposely conducted in Bellevue Hospital, which is directly opposite the College, and in New York Hospital, which is conveniently located on Fifteenth Street, and may be reached by surface cars in fifteen to twenty minutes.

## REQUIREMENTS FOR ADMISSION.

The Faculty of the Cornell University Medical College are of the opinion that candidates for admission to the medical profession should possess the liberal culture and general education implied by a college degree in Arts or Science. Since 1907 a standard of admission which requires the baccalaureate degree or its equivalent has been rigidly maintained. Without attempting to enter into a discussion of the relative advantages of the courses in Science or Arts, the President and Trustees of Cornell University adopted the requirements advised by the Faculty of the Medical College for admission to the course leading to the degree of M.D. and *only the following classes of candidates are admitted to the Cornell University Medical College:*

I. Graduates of approved colleges or scientific schools; *or—*

II. Seniors in good standing in approved colleges or scientific schools upon condition that their faculty will permit them to substitute the first year in the Cornell University Medical College for the fourth year of their college course, and will confer upon them the bachelor's degree\* upon the satisfactory completion of the year's work; *or—*

III. Persons who give evidence by examinations that they have acquired an equivalent education to that signified by a bachelor's degree, and training sufficient to enable them to profit by the instruction offered in the Medical College.

**All Candidates for Admission**, whether of group I, II, or III, shall have satisfactorily completed in an approved college, at least the following minimum in—

1. Physics, 8 semester hours, including laboratory.
2. Chemistry, 12 semester hours (8 hours of inorganic, including both qualitative and quantitative analysis and 4 hours of organic chemistry). The course should have included at least fifty hours of didactic work not less than eighty hours of laboratory work in inorganic chemistry; and at least 70 hours each of laboratory work in *qualitative* and in *quantitative analysis*. In addition, the candidate shall have satisfactorily completed courses in at least 36 hours of didactic and 80 hours of laboratory work in *organic chemistry*.
3. Biology (Zoölogy), 6 semester hours, including laboratory work.
4. English, 6 semester hours.
5. Modern language, 6 semester hours—French, German, Italian or Spanish.
6. Two additional semester hours of college credit will be required in each of the three subjects, Biology, English and Modern language, in which no introductory high school course was offered for admission to college.

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\*No student under this clause is permitted to enter the second year of the medical curriculum without the bachelor's degree obtained after at least three years of undergraduate college work. This clause is intended to provide for those students who by specially directed or by specially proficient work accomplish the essential requirements for a B.S. or B.A. degree during three years of College residence.



## REQUIREMENTS FOR ADMISSION.

7. All applicants residing within 50 miles of New York City are required to present their credentials *in person* by appointment at the office of the Secretary. All others must submit with their application a recent photograph.

IV. Since September, 1920, all students entering Cornell University Medical College are required to provide themselves with a satisfactory microscope.

V. Not more than seventy-five students will be admitted to the first year in Medicine; approved applicants for advanced standing will be admitted to subsequent years only when the number registered falls below sixty. Not more than sixty students each will be registered in the second, third or fourth year classes.

VI. The number of students in this Medical College having been limited that its advantages may be equalized to all parts of the state and country, not more than five students from any one college will be admitted to the first year class.

The Trustees felt that it was unfair to refuse the exceptional student of unusual abilities who has obtained independently an education equivalent to that implied by a degree from a college or scientific school, and there will therefore be examiners appointed from the faculties in the different colleges of Cornell University to determine the qualifications of such as may apply for admission under Rule III of these requirements. The committee in charge of the administration of this rule consists of the President of the University and the Deans of the Faculties of Arts and Sciences and of Medicine. The only instance of admission under Rule III yet encountered involved a graduate of a foreign institution of collegiate rank which grants no degrees.

## APPLICATIONS FOR ADMISSION.

All applications and communications are to be addressed to the Secretary of the Medical College from whom blank forms of application for admission may be obtained.

Prospective students will often find it to their advantage to file their application early in the Spring. The number of admissions being limited, to insure favorable consideration, *applications for admission to the first year should be received not later than March 1st*, and should in all cases be accompanied by a transcript of the college record to date. The required letters of recommendation from two science professors under whom the student has recently worked should be forwarded at the same time. If the applicant does not call in person his photograph must accompany the application.

Inasmuch as all students of medicine in New York State are required by law to have previously had an adequate preliminary education, and as this preliminary education must be certified as sufficient by the State Educational Department, it is advisable that applicants for admission send their credentials to the Secretary of the Medical College in properly attested form as early as possible, that the secretary may then obtain the requisite "medical student's certificate" from the State authorities.

## CORNELL UNIVERSITY MEDICAL COLLEGE

### ADMISSION TO ADVANCED STANDING.

Applicants for advanced standing must have met in full the requirements for admission (page 24), and must have already attended the legally required number of sessions in an approved regular medical college. Whenever vacancies arise\* applicants thus qualified may be admitted to the Cornell University Medical College under the following conditions:

1. A properly attested certificate of actual attendance at a registered Medical College for the full number of years of medical study for which time credit is asked must be presented and approved.

2. A certificate showing that the student has satisfactorily completed in an approved medical college the work of all required subjects of the years for which Cornell credit is asked must be presented and approved.

3. Subject credit may be granted on presentation and approval by the heads of departments of properly attested certificates stating the courses already completed in an approved medical college with the number of hours, didactic and laboratory, devoted thereto, together with the name of the instructor.

4. In the absence of approval of the certificate called for in the preceding paragraph (number 3) subject credit for advanced standing will be granted only by examination.

For a list of the subjects for examination see page 80.

Examinations for admission to advanced standing are conducted by heads of departments and may be taken with the class at the end of the session in June or prior to the opening of the session in September. For dates of examinations, see calendar, page 5.

### ADMISSION TO SPECIAL COURSES.

Graduates in medicine, or students who desire to pursue a special course without graduation, are admitted to registration as special students, after approval by the head of the department conducting the course. Such special courses do not count in any way as part of the four years' course required of candidates for the degree of doctor in medicine. The courses offered to graduates are outlined on pages 85 to 87. Further information regarding such courses, fees, etc., may be obtained by addressing the Secretary of the Cornell University Medical College, First Avenue, 27th and 28th Streets, New York.

### REQUIREMENTS FOR LICENSE TO PRACTICE MEDICINE IN THE STATE OF NEW YORK.

Graduates of Cornell University are admitted unconditionally to the examinations for license to practice medicine in the State of New York. Further information as to the nature of the requirements of the New York State

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\* The three upper classes are limited to sixty students each. See Rule V, page 25.

## REQUIREMENTS FOR ADMISSION.

law regulating the practice of medicine may be obtained by consulting the handbook issued for gratuitous distribution by the New York State Education Department at Albany, N. Y.

*All requirements for admission to examinations for licensure should be filed with the State Education Department at least one week before examination.*

Examinations for license to practice medicine in this State will be held as follows:

| 1922        | 1923           | 1924        | 1925        |
|-------------|----------------|-------------|-------------|
| Jan. 23-26  | Jan. 29-Feb. 1 | Jan. 28-31  | Jan. 26-29  |
| May 22-25   | May 21-24      | May 19-22   | May 18-21   |
| June 26-29  | June 25-28     | June 23-26  | June 22-25  |
| Sept. 25-28 | Sept. 24-27    | Sept. 22-25 | Sept. 21-24 |

### *Places.*

New York, Albany, Syracuse, Buffalo.

## NATIONAL BOARD OF MEDICAL EXAMINERS.

Graduates of the Cornell University Medical College are admitted to the examinations of this Federal Board, whose certificates are accepted by the Surgeons-General of the Army, Navy and Marine Corps of the United States and by the Boards of Medical Licensure of many States. The dates and places of examination will be announced as promulgated by the Board.

## CHARGES FOR INSTRUCTION.

### *First Year.*

|                       |                |
|-----------------------|----------------|
| Matriculation .....   | \$10.00        |
| Tuition .....         | 300.00         |
| Laboratory fees ..... | 35.00          |
|                       | —————\$345.00* |

### *Second Year.*

|                       |                |
|-----------------------|----------------|
| Tuition .....         | \$300.00       |
| Laboratory fees ..... | 35.00          |
|                       | —————\$335.00* |

### *Third Year.*

|                       |                |
|-----------------------|----------------|
| Tuition .....         | \$300.00       |
| Laboratory fees ..... | 35.00          |
|                       | —————\$335.00* |

### *Fourth Year.*

|                            |                |
|----------------------------|----------------|
| Tuition .....              | \$300.00       |
| Laboratory fees .....      | 25.00          |
| Final Examination fee..... | 25.00          |
|                            | —————\$350.00* |

\*An advance payment of \$50.00 on account of tuition is required on acceptance of an application for admission to the first year, and is not returnable.

The matriculation fee is payable only once, on entrance.

The final examination fee is payable on registering for graduation. All other fees are payable at the beginning of the term, but in special cases they may be paid semi-annually in advance. No rebate will be made in any case.

No remission of laboratory fees will be made because of previous instruction elsewhere in the subjects.

## LOCATION AND MODE OF ACCESS.

Each student is required to pay the clerk of the College the following amounts to cover breakage in the Laboratories and Dispensary departments:

|  |         |
|--|---------|
| 1st year, Laboratory and Dispensary..... | \$10.00 |
| 2d year, Laboratory and Dispensary.....  | 10.00   |
| 3d year, Laboratory and Dispensary.....  | 10.00   |
| 4th year, Laboratory and Hospital .....  | 10.00   |

These deposits, less the amount charged for breakage, will be returned at the end of each year.

All fees for instruction are paid to the office of the Managing Clerk.

Tickets must be taken out and paid for at the beginning of the session.

For Fees of Special Students see pages 85 to 88.

For Fees of Graduates Students see page 92.

## LOCATION AND MODE OF ACCESS.

The main building of Cornell University Medical College is located on First Avenue between 27th and 28th Streets.

The street railway cars of the Third Avenue System on First Avenue pass the College building. The crosstown cars on Twenty-third and Thirty-fourth Streets, at First Avenue, pass within five blocks of the College buildings. Convenient stations of the Subway lines are located at Twenty-eighth Street and Fourth Avenue at Twenty-eighth Street and Broadway and Twenty-eighth Street and Seventh Avenue. The nearest stations of the Manhattan Elevated Railroad are at Twenty-eighth Street on the Third and Sixth Avenue lines and at Twenty-third Street on the Second Avenue line.

## GENERAL STATEMENT OF THE PLAN OF INSTRUCTION.

The function of a Medical Department in a University is primarily to produce practitioners of medicine of the highest possible efficiency. The school must include among its students not only those whose life is to be spent in the treatment of disease, but those who intend to become teachers of medicine or of the branches of natural science upon which medicine depends, as well as those who devote their energies to advancing these sciences by research and to work connected with the public service. The Medical Department of the University has therefore developed into a school whose students are to be prepared to become practitioners of medicine and surgery, teachers of these subjects and their subsidiary branches, and investigators of biological problems which pertain to human disease and "preventive medicine." To reach this ideal, and to relieve the Medical Department from instruction in subjects which belong to natural science in general and not strictly to the medical curriculum, it is necessary that the students should have received the best possible preliminary education, which must include the mental training implied by the *baccalaureate degree*.

In arranging the course of study the subjects pertaining to pure, rather than applied, science are grouped in the first year of the medical course, those of the applied science in the early part of the second year, and the so-called clinical subjects in the second, third and fourth years.

The fourth year of the medical curriculum is devoted largely to clinical instruction in the various aspects of medicine and surgery, with bedside instruction and ample opportunity for the careful study of cases by continuous service in the hospital wards. Some opportunity for elective courses is allowed, but all students must take at least the minimum amount of the subjects which form the basis of the general practitioner's usefulness, and all are thus necessarily prepared for successfully undergoing the usual competition for appointments as hospital internes, positions in the public service of the State and Nation, and examinations for licensures by the States.

Any student of exceptional fitness, however, after having completed the first three years' work and who then desires to devote the major part of his time to one or more of the laboratory departments may do so during the fourth year. Such an arrangement can be made only with the approval of the Dean and the heads of the departments concerned. The departments in which the student is engaged shall then determine whether his work has given such satisfaction as would warrant the degree at the end of the year.

Custom and experience are in favor of a long summer vacation, and the utilization of the cool months alone for teaching. The Faculty have therefore decided on a period of thirty-two actual working weeks exclusive of the time occupied by holidays and examinations. This working period is



## *CORNELL UNIVERSITY MEDICAL COLLEGE*

divided into three terms, the first of eleven, the second of ten, and the third of eleven weeks. By this arrangement it is possible to obtain a certain degree of "concentration" in the teaching of those subjects in which that plan is advantageous, and it is thus also possible to maintain a proper sequence in the curriculum.

The extensive opportunity for continuous ward work afforded by the curriculum of the third and fourth years in no wise replaces the valuable work afforded by hospital internship, but is in a way preparatory thereto. Every graduate of this medical school is expected to pursue the usual interne service in some hospital, our graduates having little or no difficulty in obtaining the best positions under competitive examination in addition to those appointments directly and indirectly controlled by this College. Without prolonged hospital training no physician should attempt to practice nor to teach; and no specialist can be worthy of the name who has not had the broad foundation insured by such a service.

For details of the course see Departmental Announcements, which follow, and the scheduled curriculum, pages 71 to 79.



## DETAILS OF THE PLAN OF INSTRUCTION.

### DETAILS OF THE PLAN OF INSTRUCTION.

#### THE DEPARTMENT OF ANATOMY.

CHARLES R. STOCKARD, M.S., Ph.D., Sc.D., *Professor of Anatomy.*  
CHARLES V. MORRILL, A.M., Ph.D., *Assistant Professor of Anatomy.*  
ROBERT CHAMBERS, JR., A.M., Ph.D., *Assistant Professor of Anatomy.*  
GEORGE PAPANICOLAOU, Ph.D., M.D., *Instructor in Anatomy.*  
WILLIAM L. SNEED, M.D., *Instructor in Applied Anatomy.*  
JOSE F. NONIDEZ, Sc.D., *Instructor in Anatomy.*  
S. DOUGLASS PALMER, A.B., M.D., *Assistant in Anatomy.*  
———, *Preparateur in Anatomy.*  
WINIFRED KIRK, A.B., *Assistant in Anatomy.*  
ALICE L. BROWN, A.M., *Assistant in Anatomy.*  
IRVIN BALENZWEIG, A.B., M.D., *Assistant in Applied Anatomy.*  
RAYMOND S. CRISPELL, A.B., M.D., *Assistant in Neuro-Anatomy.*  
WALTER WELLER, A.B., M.D., *Assistant in Anatomy.*

#### I. Morphology.

**Structure of Man.**—This course considers the structure of the various organs and systems of the human body in the light of their variations and evolutions. The relationship of the parts of the organs and systems are also explained by numerous facts gathered from experimental morphological studies on lower vertebrates.

The chief aim is to instill into the student the idea that animal structures are constantly changing and varying, yet are so definite as to lend themselves to logical analysis.

Laboratory, 40 hours (elective), and demonstration conferences, 22 hours (required).

*Text-books.*—Wiedersheim's *Comparative Anatomy* and *Bau des Menschen*, Wilder's *History of Man*, together with special works and monographs on the subject.

Professor Stockard.

#### II. Embryology and Histology.

The work in *embryology* presupposes a general knowledge of the subject, particularly that of the early development of the chick. It embraces a thorough study of the development of the mammalian embryo in the light of our knowledge of the evolution of the human body. Malformations resulting from developmental disturbances are broadly considered. A feature of the course is the close correlation with the course in *gross anatomy*.

The work in *histology* includes the histogenesis and microscopic structure of all of the organs of the human body with the exception of the central nervous system (see *neuro-anatomy*). Emphasis is laid on the relation of structure to function.

## CORNELL UNIVERSITY MEDICAL COLLEGE

The tissues are studied both in the fresh condition and by means of stained sections and frequent drills are given for a rapid identification of their diagnostic features. A part of the course is devoted to histological technique.

Laboratory course and lectures—249 hours, October to March. Required of all first year students.

*Text-books.*—Prentiss, *Laboratory Manual and Text-book of Embryology*; Lewis, *Text-book of Histology*; Keith, *Human Embryology and Morphology*; Schäfer, *Microscopic Anatomy*; Minot, *Laboratory Embryology*; Keibel and Mall, *Human Embryology*; Broman, *Normal and Abnormal Embryology*.

Assistant Professor Chambers, Dr. Nonidez and assistants.

### III. Neuro-Anatomy.

A laboratory course on the gross and microscopic anatomy of the human central nervous system. Especial emphasis is laid on the more important pathways and their functions.

Laboratory and demonstrations, 88 hours. Required of all first year students during the third term.

*Text-books.*—Ranson, *Anatomy of the Nervous System*, Villiger's *Brain and Spinal Cord*, Herrick's *Introduction to Neurology* and any of the text-books of anatomy used in Course IV.

Assistant Professor Morrill and Dr. Nonidez.

### IV. Gross Anatomy of the Human Body.

This is taught by means of laboratory exercises and dissections held in the dissecting room at stated hours.

The following are the courses required:

COURSE I. THE UPPER EXTREMITY.

COURSE II. THE HEAD AND NECK.

COURSE III. THE LOWER EXTREMITY.

COURSE IV. THE THORAX.

COURSE V. THE ABDOMEN AND PELVIS.

The required work in each of the above courses includes:

(a) Dissection of the part.

(b) Demonstrations, study, and recitations upon dissected and prepared specimens, and from standard text-books.

(c) An oral examination at the completion of each course.

Total laboratory hours, 308 (minimum). First and second terms of the first year.

COURSE VI. A DEMONSTRATION COURSE. Optional for the first-year students. Demonstrations upon the cadaver, models and dissected preparations amplifying the courses in dissection during the first and second terms of the first year.

COURSE VII. STUDY ROOM COURSE IN LIVE ANATOMY.

Since the ultimate aim of dissection is to acquaint the student not merely with the arrangement of structures in the cadaver, but with the facts of the living body, this course follows as a natural sequence to the work of the dissecting room. Optional to first-year students.

COURSE VIII. DISSECTION REVIEW.

## DETAILS OF THE PLAN OF INSTRUCTION.

The work covers a repetition of Courses I-V, giving an opportunity for advanced dissection. Optional to students of the second, third or fourth year. Afternoons.

**COURSE IX. TOPOGRAPHICAL ANATOMY.**—A study of the relations and topography of the parts of the body by means of frozen sections. Cleared preparations and living models are also used. Members of the class must submit a number of drawings made from the sections.

Laboratory, 99 hours. Required during the first term of second year.

*Text-books.*—Cunningham's *Manual of Practical Anatomy*, two vols.; Cunningham's *Text-book of Anatomy*; Spalteholz's *Atlas of Human Anatomy*; Morris' *Human Anatomy*; Grey's *Anatomy*; Piersol's *Human Anatomy*.

Professors Stockard, Morrill and assistants.

### V. Applied Anatomy.

This course is given during the second term of the third year. It is conducted as a laboratory exercise and aims to demonstrate the important facts or regional and topographical anatomy as applied to the practice of medicine and surgery.

Laboratory, 60 hours.

*Text-books.*—Woolsey's *Applied Surgical Anatomy*; Davis' *Applied Anatomy*.

Drs. Sneed, Palmer and Balenzweig.

### VI. Elective Courses Preparatory to the Specialties.

Optional for students of the third and fourth years. These courses offer a thorough review of the embryology, histology and gross anatomy of the following organs and systems:

- (a) The eye.
  - (b) The ear.
  - (c) The face and neck, including especially the nose and accessory sinuses, the mouth and salivary glands, pharynx and larynx, thyroid and parathyroid glands.
  - (d) The genito-urinary system, male and female.
  - (e) The brain and spinal cord.
  - (f) The thorax and abdomen.
  - (g) The extremities, especially the joints and their mechanics.
- Laboratory, 40 hours. Professor Stockard and instructors.

### VII. Elective Courses for Advanced Students.

**COURSE I. GENERAL HISTOLOGY.**—This course will comprise a study of the various types of tissues which form the several organs of the vertebrate body. The structures will be studied not only from the mere morphological standpoint, but the various biological problems involved will be taken into consideration. The close relationship between structure and function will be elucidated.

## CORNELL UNIVERSITY MEDICAL COLLEGE

Twenty lectures, March to June.

Registration not later than January. Assistant Professor Chambers.

COURSE II. THE ANATOMY OF THE INFANT.—A course of lectures amplified by demonstrations and the study of preparations.

Twenty lectures arranged for in advance. Professor Stockard.

COURSE III. DEVELOPMENT ARRESTS AND STRUCTURAL DEFICIENCIES.—A discussion of the imperfections in development which may occur during various periods from the maturation of the germ cells, fertilization of the egg on through embryonic and fetal development.

Fifteen lectures. Professor Stockard.

COURSE IV. EXPERIMENTAL EMBRYOLOGY.—These lectures begin with the history of the subject and the various aspects of the problems concerned. The experimental analysis of embryological processes is then considered from the several points of view.

Twenty lectures with conferences considering the recent literature of the subject. March to June. Professor Stockard.

COURSE V. REGIONAL ANATOMY.—This course will comprise a thorough review by means of dissections, demonstrations and reading of the gross anatomy, histology and development of selected regions of the body and of organs and organ systems.

Laboratory and demonstration, 3 half days a week for two months.

Assistant Professor Morrill and assistants.

COURSE VI. FOURTH-YEAR ELECTIVES.—The Department of Anatomy will arrange a schedule of work to fit individual cases for a limited number of *fourth-year students* desiring to devote the major part or all of their elective time. Such work will be designed, in cases where sufficient time is available, to equip the student to become a laboratory assistant.

### VIII. Anatomical Research.

To students desiring to pursue research in anatomical subjects the equipment of the entire department is available. Members of the staff will gladly assign subjects and direct the progress of advanced work of this type. The work may be elected by students who enter with advanced credits, or by any student who has completed the preliminary courses in descriptive anatomy, histology and embryology. The course is also open to graduates in medicine or biology.

#### SUMMARY.

|                               | <i>First Year.</i> | <i>Second Year.</i> | <i>Third Year.</i> |
|-------------------------------|--------------------|---------------------|--------------------|
| Morphology . . . . .          | 22 hours           | .....               | .....              |
| Embryology and Histology... . | 249 hours          | .....               | .....              |
| Gross Anatomy . . . . .       | 308 hours          | .....               | .....              |
| Topographical Anatomy . . . . | .....              | 99 hours            | .....              |
| Neuro-Anatomy . . . . .       | 88 hours           | .....               | .....              |
| Applied Anatomy . . . . .     | .....              | .....               | 60 hours           |

## DETAILS OF THE PLAN OF INSTRUCTION.

### PHYSIOLOGY.

GRAHAM LUSK, Ph.D., *Professor of Physiology.*

D. J. EDWARDS, Ph.D., *Assistant Professor of Physiology.*

MICHAEL RINGER, M.D., *Associate in Physiology.*

DAVID RAPPORT, M.D., *Assistant in Physiology.*

*First Year.* Nervous System and Respiration.

Lectures, laboratory, recitations and a weekly seminar. Physiology of the muscle and nerve, the central nervous system, the special senses and respiration.

*Second Year.* Physiology and Nutrition.

Lectures, laboratory, recitations and seminar. Circulation, secretion, digestion, internal secretions and metabolism.

#### SUMMARY.

|                   | <i>First Year.</i> | <i>Second Year.</i> |
|-------------------|--------------------|---------------------|
| Lectures .....    | 33 hours           | 66 hours            |
| Recitations ..... | 44 hours           | 27 hours            |
| Seminary .....    | .....              | 11 hours            |
| Laboratory .....  | 99 hours           | 99 hours            |

*Text-books.*—Howell's or Macleod's *Physiology*; Lusk, *Science of Nutrition*; Wiggers, *Circulation in Health and Disease*; Collateral Reading, Scientific Journals.

### CHEMISTRY.

STANLEY R. BENEDICT, Ph.D., *Professor of Chemistry.*

THOMAS PALMER NASH, Ph.D., *Instructor in Chemistry.*

ELIZABETH FRANKE, Ph.D., *Instructor in Chemistry.*

EMIL OSTERBERG, *Instructor in Chemistry.*

ELLIS M. BLACK, A.M., M.D., *Associate in Chemistry.*

JEANETTE ALLEN BEHRE, A.B., *Associate in Chemistry.*

MARJORIE HUPPER, A.B., M.S., *Assistant in Chemistry.*

The instruction in chemistry is concentrated in the first year, and is arranged upon the assumption that the student is already thoroughly grounded in the principles of chemistry and in physics. The object aimed at is to impart that fundamental knowledge of organic and physiological chemistry which is necessary to the comprehension of the bearings of chemistry upon physiology, pharmacology and medicine.

**Lectures.**—There will be two lectures a week during the first term upon physical chemistry. The elements of the subject will be presented with special emphasis upon the properties and reactions of colloids, and the theory of indicators. Roentgen and radium rays are also discussed.

During the second term two lectures a week will be devoted to organic chemistry. The lectures will discuss groups of compounds of especial biological importance, emphasizing especially the carbohydrates, purines, amino acids and the fats.

In the third term three lectures weekly will be devoted to Physiological Chemistry.



## CORNELL UNIVERSITY MEDICAL COLLEGE

**Recitations and Conferences.**—There will be one recitation weekly during the second term and two weekly during the third. These recitations are largely in the nature of a conference.

**Laboratory Work.**—During the first term there will be one session weekly of three and one-half hours in physical chemistry. The experiments are designed to familiarize the student with the fundamental properties of electrolytes and colloids, and to study the phenomena of osmosis and dialysis. Methods of hydrogenion determination are also studied.

In the second term there will be one session weekly of two and one-half hours in organic chemistry. This work will be directed mainly to the preparation and examination of organic compounds of biological importance, and will furnish practice on those points in which laboratory manipulations are desirable.

During the third term there will be three three-hour laboratory sessions in physiological and clinical chemistry. This course will include the study of the reactions of the carbohydrates, fats and proteins; of the composition of the salivary, gastric, pancreatic and intestinal secretions and the bile, and their actions in digestion; of the feces, urine, blood and milk; and of the examination of pathological fluids, concretions, stomach contents, etc. The study of metabolism will receive particular attention. The arrangement of this course is in coaptation with those in physiology and in clinical pathology.

In the laboratory courses each student is supplied with all apparatus and chemicals required.

**Chemical Pathology.**—Elective in the fourth year. A practical course in the chemical analysis of the blood. The laboratory work is supplemented by informal lectures and discussions. Hours to be arranged.

One period a week will be devoted to a seminar in which recent literature on blood chemistry will be discussed.

**Research.**—The laboratory will be open during "optional hours" to students of any year who desire to prosecute advanced work or research, subject to the regulations of the office.

| SUMMARY.              |  | <i>First Year.</i> |
|-----------------------|--|--------------------|
| Recitations . . . . . |  | 32 hours           |
| Laboratory . . . . .  |  | 162 hours          |
| Lectures . . . . .    |  | 75 hours           |

**Text-books.**—McCollum, *Organic Chemistry*, for students of Medicine and Biology; Moore, *Laboratory Manual*; Hawk, *Practical Physiological Chemistry*, fifth edition. For Collateral Reading:—Mathews, *Physiological Chemistry*; Wells, *Chemical Pathology*.

## PHARMACOLOGY

ROBERT ANTHONY HATCHER, Ph.G., M.D., *Professor of Pharmacology.*

CARY EGGLESTON, M.D., *Assistant Professor of Pharmacology.*

SOMA WEISS, A.B., *Assistant in Pharmacology.*

Work in this department is offered during the second year.

## DETAILS OF THE PLAN OF INSTRUCTION

### *Materia Medica and Pharmacy.*

*I. Elementary Pharmacy, Toxicology and Principles of Prescription Writing.*—The work in this course occupies four hours a week during the first trimester. Twenty hours will be devoted to the consideration of crude drugs, and making pharmacopœial preparations of the different pharmaceutical classes (such as extracts, pills, etc.,) by the students. Each laboratory exercise will be preceded by an informal discussion of the work to be done and its relation to therapeutics.

The remainder of the course will be devoted to prescription writing and incompatibilities.

### *Pharmacology.*

*II. Lectures.*—During the second and third trimesters forty-five hours will be devoted to lectures, conferences and written reviews on Systematic Pharmacology. The lectures will be illustrated in part by demonstrations and by tracings taken from research experiments. Professor Hatcher.

*III. Laboratory.*—Concurrently with the lectures on Systematic Pharmacology, ninety hours will be devoted to the laboratory study of the subject. The experiments are designed to illustrate a wide range of pharmacologic actions, the more important drugs being considered with reference to their actions on different structures. Professors Hatcher and Eggleston.

*IV. Research. Elective.*—Students will be encouraged to conduct original research under the supervision of the members of the staff. Such work affords a valuable insight into pharmacologic methods, and assists in the formation of a correct estimate of the original work of others.

### SUMMARY.

#### *Second Year.*

|                      |           |
|----------------------|-----------|
| Lectures . . . . .   | 32 hours  |
| Laboratory . . . . . | 126 hours |

*Text-book.*—Sollmann, *A Text-book of Pharmacology.*

### MEDICINE.

LEWIS A. CONNER, M.D., *Professor of Medicine.*

WALTER L. NILES, M.D., *Professor of Clinical Medicine.*

EUGENE F. DUBOIS, M.D., *Associate Professor of Medicine.*

NELLIS B. FOSTER, M.D., *Assistant Professor of Medicine.*

MALCOLM GOODRIDGE, M.D., *Assistant Professor of Medicine.*

WILLIAM C. THRO, M.D., *Professor of Clinical Pathology.*

FRANK S. MEARA, M.D., *Professor of Clinical Medicine.*

ALEXANDER LAMBERT, M.D., *Professor of Clinical Medicine.*

CHARLES E. NAMMACK, M.D., *Professor of Clinical Medicine.*

WARFIELD T. LONGCOPE, M.D., *Professor of Clinical Medicine.*

WILLIAM H. SHELDON, M.D., *Assistant Professor of Clinical Medicine.*

## CORNELL UNIVERSITY MEDICAL COLLEGE

RUSSELL L. CECIL, M.D., *Assistant Professor of Clinical Medicine.*

ARTHUR L. HOLLAND, M.D., *Assistant Professor of Clinical Medicine.*

SAMUEL BRADBURY, M.D., *Assistant Professor of Clinical Medicine.*

ROBERT A. COOKE, M.D., *Assistant Professor of Applied Immunology.*

MAX EINHORN, M.D., *Lecturer on Diseases of the Stomach.*

HAROLD E. B. PARDEE, M.D., *Associate in Medicine.*

DAVID P. BARR, M.D., *Instructor in Medicine.*

JOHN H. RICHARDS, M.D., *Instructor in Clinical Pathology and Medicine.*

NANCY JENISON, M.D., *Instructor in Medicine.*

WALTER H. BRUNDAGE, M.D., *Instructor in Medicine.*

RALPH G. SILLMAN, M.D., *Instructor in Clinical Medicine.*

HERBERT L. ALEXANDER, M.D., *Instructor in Medicine.*

NILS P. LARSEN, M.D., *Instructor in Medicine.*

DAN H. WITT, M.D., *Instructor in Medicine.*

CARY EGLESTON, M.D., *Instructor in Therapeutics.*

HENRY S. SPENCER, M.D., *Instructor in Medicine.*

HENRY B. RICHARDSON, M.D., *Instructor in Medicine.*

CHARLES H. NAMMACK, M.D., *Instructor in Clinical Medicine.*

JOSEPHINE B. NEAL, M.D., *Assistant in Medicine.*

ROYCE PADDOCK, M.D., *Assistant in Medicine.*

ASA L. LINCOLN, M.D., *Assistant in Clinical Medicine.*

The course in Medicine is begun in the second trimester of the second year and is continued uninterruptedly through the third and fourth years. Instruction is given by means of didactic lectures, laboratory exercises, amphitheatre clinics, recitations, section classes in the wards and in the College Clinic and clinical clerkships in the wards of Bellevue and New York Hospitals.

### SECOND YEAR.

**Introductory Clinics.**—The subject of Medicine is introduced in the second trimester by a series of elementary clinics designed to acquaint the student with the simpler and more obvious aspects of important and common types of disease and to stimulate in him the habit of close observation. These clinics are held by Professors Conner and DuBois once a week during the second and third trimesters.

**Recitations.**—The student is required to read upon the subjects considered in each of the clinics and to attend one recitation a week dealing with these subjects.

**Physical Diagnosis.**—During the third trimester the principles of physical diagnosis are presented in demonstrations and conferences by Doctor Pardee, and the students, in small sections, are given training in the various methods of physical examination. Only normal subjects are examined and the importance of a thorough familiarity with normal physical signs under varying conditions is insisted on.

## DETAILS OF THE PLAN OF INSTRUCTION.

**Ward Classes.**—In the third trimester the introductory clinics are supplemented by bedside teaching to small sections in the wards of Bellevue Hospital by Professors Lambert and Nammack.

### THIRD YEAR.

**Lectures.**—During the first and second trimesters one lecture a week is given by Professor Conner upon the general symptomatology of disease. Each of the commoner and more important symptoms is considered in detail with special reference to the physiological processes involved.

**Physical Diagnosis.**—This subject is continued in the third year during the second and third trimesters. The class is divided into small groups, each of which in turn is assigned to service in the medical clinic of the College Dispensary. The students, under careful supervision, are expected to take histories and to make and record physical examinations; and systematic instruction in pathological physical diagnosis is given by Professor Foster and Doctors Brundage and Jenison.

**Clinics.**—In the first and third trimesters general medical clinics are held once a week in the College Dispensary or in Bellevue Hospital by Professor Conner. During the first term these consist chiefly of clinical conferences upon diseases of the gastro-intestinal tract, in which the roentgenological findings are presented by Doctor Holland and the surgical aspects of the cases are discussed by Professors Hartwell and Woolsey. In the third term are presented such ambulatory types of medical diseases as are usually not seen in the hospital wards. In this trimester also a medical clinic is held once a week in Bellevue Hospital for both the third and fourth year students by Professor DuBois.

**Recitations.**—In this year the subject of Medicine is covered systematically and thoroughly by recitations which are held three times a week during the second and third trimesters. Doctors Richards and Cecil.

**Therapeutics.**—Instruction in therapeutics, under the charge of Professor Goodridge, will be given throughout the third year, and will comprise:

*Lectures*, dealing with the theories and modes of therapy, including serum and vaccine therapy, the treatment of hay fever and bronchial asthma, various metabolic disturbances, and the therapeutic management of definite types of disease, so designed as to direct the student in the application of his pharmacologic knowledge to therapeutic problems. Professors Meara, Foster and Goodridge, and Doctors Eggleston, Cooke and Cecil. 32 hours.

*Recitations and Conferences*, which will deal with the treatment of the acute infections. Professor Goodridge. 16 hours.

*Practical Demonstrations*, to small sections, in the wards of Bellevue Hospital, of such therapeutic procedures as are suitable for this form of instruction. Professor Goodridge. 16 hours.



## CORNELL UNIVERSITY MEDICAL COLLEGE

*Clinical Clerkships:* In the fourth year, students will be assigned to the wards of Bellevue Hospital, to serve as clinical clerks, for periods of four weeks each, during two weeks of which especial emphasis will be given to instruction in various therapeutic procedures.

**Clinical Pathology.**—The introductory required course, under the charge of Professor Thro, is given in the first trimester of the third year. It consists of one hundred and ten hours of lectures and laboratory work. This time is devoted to the teaching and the practical application of methods for the examination of urine, blood and blood serum, sputum, exudates and transudates, spinal fluid, gastric contents, fæces, and for the bacteriological examination of clinical material.

During the remainder of the third year and in the fourth year the students perform laboratory tests on patients assigned them in the clinics and hospitals, where they are supervised by instructors in the Department of Medicine.

In the latter part of the fourth year students have the opportunity to elect work in Clinical Pathology.

### FOURTH YEAR.

**Clinical Clerkships.**—The time allotted to medicine in the last year is devoted entirely to practical work in the wards of New York and Bellevue Hospitals and to elective subjects. Each student is required to serve for a period of two months as clinical clerk in the medical wards; the time being divided equally between New York and Bellevue Hospitals. During this period his entire day is spent in the wards and clinical laboratories. A certain number of patients are assigned for study to each student. Under careful supervision he takes the histories, makes physical examinations, performs the various necessary laboratory examinations and records the progress of the cases. He is expected to be present at all post mortem examinations and to attend the clinical pathological conferences. Each afternoon teaching rounds for the entire group on duty are made by some members of the Attending Staff.

At the New York Hospital, in addition to the routine ward teaching by Professors Conner and Foster, a weekly conference by Professor Foster is held with the group upon disorders of metabolism and their treatment, as exemplified by cases in the wards; a course of eight periods on the fluoroscopic investigation of the gastro-intestinal tract is given by Doctor Holland, and a part of one afternoon of each week is devoted by Doctor Pardee to the study of cardiac arrhythmias and the interpretation of electrocardiographic and polygraphic records.

At Bellevue Hospital, in addition to the routine ward teaching by Professors DuBois, Niles and Goodridge, the following special exercises are held:

- a. Neurological clinic, once a week, Professor Kennedy.
- b. Clinical-pathological conference, once a week.
- c. Medical Clinic, one a week. Cases are presented by the student



## DETAILS OF THE PLAN OF INSTRUCTION.

clerks and are discussed by the staff, and the results of experimental work done by the research members of the staff are demonstrated in connection with the cases studied.

d. Library conferences. The group on duty meet once a week in the college library where instruction is given in the use of the reference library and in looking up the literature of special subjects.

*Elective Studies.*—The latter part of the fourth year is available for elective work. For courses offered see page 64.

**Graduate Study and Research.**—The clinics and laboratories of Bellevue and New York Hospitals are available for special study and research to a limited number of physicians possessing suitable training.

**Bellevue Hospital Clinic.**—The Russell Sage Institute of Pathology is especially equipped for the investigations of problems of basal metabolism. The calorimeter is operated in conjunction with a metabolism ward and there is a chemical research laboratory for the study of problems connected with respiration and the gases of the blood.

**New York Hospital Clinic.**—The clinical laboratory and chemical laboratory are closely allied with the wards and offer excellent facilities for the study of the chemical aspects of disease. Special lines of research may also be carried on in the serological and bacteriological laboratories of the Hospital in conjunction with clinical observation in the wards. These laboratories have been used notably in the study of the anæmias, nephritis, and protein sensitization.

### SUMMARY.

#### *Medicine.*

|                           | <i>Second Year.</i> | <i>Third Year.</i> | <i>Fourth Year.</i> |
|---------------------------|---------------------|--------------------|---------------------|
| Lectures .....            | 4 hours             | 21 hours           | .....               |
| Recitations .....         | 21 hours            | 63 hours           | .....               |
| Clinics .....             | 42 hours            | 55 hours           | .....               |
| Clinical Clerkships ..... | .....               | .....              | 336 hours*          |
| Sections .....            | 32 hours            | 20 hours           | .....               |

#### *Therapeutics.*

|                   |          |       |
|-------------------|----------|-------|
| Lectures .....    | 32 hours | ..... |
| Recitations ..... | 16 hours | ..... |
| Sections .....    | 16 hours | ..... |

#### *Clinical Pathology.*

Laboratory, recitations & lectures 110 hours.

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\* Includes Therapeutics.

**SURGERY.**

CHARLES L. GIBSON, M.D., *Professor of Surgery.*  
 JOHN A. HARTWELL, M.D., *Associate Professor of Surgery.*  
 HENRY H. M. LYLE, M.D., *Assistant Professor of Surgery.*  
 GEORGE WOOLSEY, M.D., *Professor of Clinical Surgery.*  
 JOHN ROGERS, M.D., *Professor of Clinical Surgery.*  
 IRVING S. HAYNES, M.D., *Professor of Clinical Surgery.*  
 ALFRED S. TAYLOR, M.D., *Professor of Clinical Surgery.*  
 HOWARD LILIENTHAL, M.D., *Professor of Clinical Surgery.*  
 BURTON J. LEE, M.D., *Professor of Clinical Surgery.*  
 JAMES MORLEY HITZROT, M.D., *Professor of Clinical Surgery.*  
 PERCY R. TURNURE, M.D., *Assistant Professor of Clinical Surgery.*  
 JOSEPH P. HOGUET, M.D., *Assistant Professor of Clinical Surgery.*  
 JOHN C. A. GERSTER, M.D., *Assistant Professor of Clinical Surgery.*  
 HAROLD E. SANTEE, M.D., *Assistant Professor of Clinical Surgery.*  
 ELISE S. L'ESPERANCE, M.D., *Assistant Professor of Pathology.*  
 CHARLES E. FARR, M.D., *Assistant Professor of Clinical Surgery.*  
 JAMES N. WORCESTER, M.D., *Assistant Professor of Clinical Surgery.*  
 GEORGE W. HAWLEY, M.D., *Lecturer on Fractures.*  
 JAMES H. KENYON, M.D., *Instructor in Clinical Surgery.*  
 KENNETH JOHNSON, M.D., *Instructor in Surgery and in Operative Surgery.*  
 EDWARD C. BRENNER, M.D., *Instructor in Operative Surgery.*  
 LEILA C. KNOX, M.D., *Instructor in Surgical Pathology.*  
 MORRIS K. SMITH, M.D., *Instructor in Surgery.*  
 ABRAHAM J. BELLER, M.D., *Instructor in Operative Surgery.*  
 ABRAHAM O. WILENSKY, M.D., *Instructor in Operative Surgery.*  
 JOHN M. O'CONNOR, M.D., *Instructor in Operative Surgery.*  
 MORTON RYDER, M.D., *Instructor in Surgical Pathology.*  
 GUILFORD S. DUDLEY, M.D., *Instructor in Clinical Surgery.*  
 RALPH G. STILLMAN, M.D., *Instructor in Pathology.*  
 JOSEPH E. KING, M.D., *Instructor in Surgery.*  
 FENWICK BECKMAN, M.D., *Assistant in Clinical Surgery.*  
 RICHARD W. BOLLING, M.D., *Assistant in Clinical Surgery.*  
 FENTON TAYLOR, M.D., *Assistant in Clinical Surgery.*  
 BRADLEY COLEY, M.D., *Assistant in Clinical Surgery.*  
 CLAY RAY MURRAY, M.D., *Assistant in Clinical Surgery.*  
 RUSSELL H. PATTERSON, M.D., *Assistant in Clinical Surgery.*  
 LUCIUS A. WING, M.D., *Clinical Instructor in Surgery.*  
 WILLIAM L. SOULE, M.D., *Clinical Instructor in Anesthesia.*  
 ERMINIE E. GREENBERG, M.D., *Clinical Instructor in Anesthesia.*  
 PENELOPE MARSH, M.D., *Bacteriologist, Department of Surgery.*

In the second year the introductory course in surgery consists of a series of lectures and recitations, clinics in the College Dispensary and sections in the New York, Bellevue and St. Mary's Hospitals.

In the third year recitations are continued upon regional surgery; the class is instructed in sections at Bellevue and St. Luke's Hospitals in history

## DETAILS OF THE PLAN OF INSTRUCTION.

taking and methods of surgical examination and diagnosis, three hours a week for one term, and one hour a week in minor surgery in the College Dispensary during the second term.

In the second and third terms clinics for the whole class are held weekly at Bellevue, New York and St. Luke's Hospitals. Forty-three lectures are given by the Professors of Surgery.

*Operative Surgery.* The course in charge of Dr. John C. A. Gerster consists of recitations, operative work on the cadaver, and the application of bandages and plaster dressings. Each member of the class performs all the principal operations.

**In the fourth year** students spend eight weeks as clinical clerks in the wards of the New York and Bellevue Hospitals. They also receive clinical instruction in small groups in several hospitals and dispensaries on the special branches of urology, gynecology and orthopedics. In the last two months all the work is purely elective and the students may supplement their work in surgery by clinical electives and by taking some of the group of surgical lectures which are offered annually.

### HOSPITAL WORK.

The Cornell University Medical College through its control of the First Surgical Service of the New York Hospital, the Second Surgical Division of the Bellevue Hospital and with clinical privileges at St. Luke's, Memorial and St. Mary's Hospitals, possess every facility necessary for the efficient teaching of practical surgery and surgical pathology.

The Staff of Instruction at the New York Hospital is at present organized as follows:

#### NEW YORK HOSPITAL, CORNELL (FIRST SURGICAL) DIVISION.

CHARLES L. GIBSON, M.D., *Professor of Surgery, Attending Surgeon.*

BURTON J. LEE, M.D., *Professor of Clinical Surgery, Associate Attending Surgeon.*

JAMES M. HITZROT, M.D., *Professor of Clinical Surgery, Associate Attending Surgeon.*

CHARLES E. FARR, M.D., *Assistant Professor of Clinical Surgery, Assistant Attending Surgeon.*

RALPH G. STILLMAN, M.D., *Instructor in Clinical Medicine, Assistant Director Department of Pathology.*

GEORGE W. WHEELER, M.D., *Instructor in Bacteriology, Bacteriologist.*

KENNETH JOHNSON, M.D., *Instructor in Surgery.*

HENRY MULLER, M.D., *Instructor in Pathology, Pathologist.*

CLAY RAY MURRAY, M.D., *Assistant in Clinical Surgery.*

WILLIAM L. SOULE, M.D., *Clinical Instructor in Anesthesia, Anesthetist.*

The work is carried on in collaboration with the additional appointees from the Department of Pathology.

The division consists of about 60 surgical beds and a variable proportion

## CORNELL UNIVERSITY MEDICAL COLLEGE

of the children's service. The service is acute in character, and is particularly rich in the graver emergency and traumatic material.

Attached to this division is also a large Dispensary (Tuesday, Thursday and Saturday mornings), which furnishes valuable material for instruction and includes departments in urology, orthopedics, gynecology and dental surgery.

The resources of the Pathological Department under Professor Elser afford valuable opportunities for the study of surgical pathology, and an intimate connection between the two departments is maintained.

Instruction consists of bedside instruction, diagnosis clinics, operative and post-operative clinics, practical instruction in sections (with utilization of the Dispensary clinical material) and clinical clerkships.

**Surgical Clerkships.**—Each section of students, for four weeks, is subdivided into four smaller groups and the course is planned to give a rotating service changing weekly. The work of the students is similar to that of the junior internes; but carried out under careful supervision. In addition, special instruction is given by members of the Attending Staff, the Staffs of the Pathological Laboratory and of the Out Patient Department in special work.

All patients in the hospital service are assigned to the student groups who become responsible for all the histories, physical examinations, laboratory investigations and observations on treatment and convalescence after operation.

A special course in Surgical Pathology is given twice a week by Drs. Stillman and Muller.

### BELLEVUE HOSPITAL, CORNELL (SECOND SURGICAL) DIVISION.

JOHN A. HARTWELL, M.D., *Associate Professor of Surgery, Director of Surgery.*

GEORGE WOOLSEY, M.D., *Professor of Clinical Surgery, Consulting Surgeon.*

JOHN ROGERS, M.D., *Professor of Clinical Surgery, Visiting Surgeon.*

HAROLD E. SANTEE, M.D., *Assistant Professor of Clinical Surgery, Visiting Surgeon.*

ELISE S. L'ESPERANCE, M.D., *Assistant Professor of Pathology, Surgical Pathologist.*

GUILFORD S. DUDLEY, *Instructor in Clinical Surgery, Assistant Visiting Surgeon.*

FENTON TAYLOR, M.D., *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

BRADLEY COLEY, M.D., *Assistant in Clinical Surgery, Adjunct Assistant Visiting Surgeon.*

RUSSELL H. PATTERSON, M.D., *Assistant in Clinical Surgery, Surgeon to Out Patients and Adjunct Assistant Visiting Surgeon.*

MORTON RYDER, *Instructor in Surgical Pathology, Department of Surgery, Assistant Surgical Pathologist.*

PENELOPE MARSH, *Bacteriologist, Department of Surgery, Surgical Bacteriologist.*

ERMINIE E. GREENBERG, M.D., *Instructor in Anesthesia, Anesthetist.*

# NEW YORK HOSPITAL FIRST DIVISION

## SCHEDULE OF SURGICAL CLINICAL CLERKS

### Morning Schedule

| Week | Group I                  | Group II.                | Group III.               | Group IV.                |
|------|--------------------------|--------------------------|--------------------------|--------------------------|
| 1st  | Operating Room*          | Anesthesia               | Gynecology**             | Staff<br>Bacteriologists |
| 2nd  | Staff<br>Bacteriologists | Operating Room*          | Anesthesia               | Gynecology**             |
| 3rd  | Gynecology**             | Staff<br>Bacteriologists | Operating Room*          | Anesthesia               |
| 4th  | Anesthesia               | Gynecology**             | Staff<br>Bacteriologists | Operating Room*          |

\*Including emergency operations, 7—11 P.M.

\*\*Dispensary, Tuesday, Thursday and Saturday at 11 A.M.

### Afternoon Schedule

| Hour | Monday                       | Tuesday   | Wednesday   | Thursday   | Friday   | Saturday    |
|------|------------------------------|---|---|--|--|-------------|
| 12   |                              |   |   | Dr. Farr   |  |             |
| 2    | Dr. Johnson                  | Dr. Johnson   | Dr. Johnson   | Dr. Johnson  | Dr. Johnson  | Dr. Johnson |
| 3    | Field<br>Rounds<br>3:15 P.M. | Rounds<br>by<br>Dr. Lee                               | Dr. Wheeler<br>(Bacteriology<br>1st Wednesday<br>of course)<br><br>Miss Josephi<br>Social Service<br>(2nd Wednesday<br>of course) | Rounds<br>by<br>Dr. Hitzrot                              | Surgical<br>Pathology<br>Drs. Stillman<br>and Muller |             |
| 4    |                              | Surgical<br>Pathology<br>Dr. Stillman &<br>Dr. Muller | Lecture on<br>Anesthesia,<br>Dr. Soule<br>1st Wednesday<br>of course  | Dr. Wheeler<br>Bacteriology<br>1st Thursday<br>of course | Rounds<br>by<br>Dr. Gibson                           |             |



## CORNELL UNIVERSITY MEDICAL COLLEGE

The Division consists of 90 surgical beds in addition to those devoted to surgical pediatrics, genito-urinary diseases and gynecology, the hospital instruction in which is outlined under their respective departments. The service is so arranged that the Associate Professor and a Clinical Professor are on continuous duty throughout the College year.

The hospital interne staff perform the routine duties of the wards, and are assisted in history taking, dressing, etc., by the surgical clerks, who spend their entire day in the wards during their period of clerkship, these privileges being extended exclusively to the students of the Cornell University Medical College.

**Surgical Clerkships.**—Intensive ward teaching is done under this head in the wards of Bellevue Hospital during the fourth year. The students are assigned in sections for four weeks each. They are under the direction of the Associate Professor aided by the corps of instruction.

Each student devotes his entire day to the work continuously for four weeks. He is assigned to the study of a certain number of patients, and is enabled to follow the complete course of the disease from the admission of the patient to his discharge. In the event of death he is present at the autopsy should one be performed.

In this way the student has an opportunity to follow to a conclusion a large number of surgical affections, and he is instructed in the proper methods of surgical history taking, surgical physical examination, surgical dressings, operative surgery as seen at the operating table. He is also instructed in the laboratory study, including bacteriology, of the blood, urine, feces, exudates, and transudates. This laboratory work is done under the direction of the staff in the laboratories connected with the hospital, and is under the immediate charge of the Surgical Pathologist to the Division. Each student spends some time in the pathological laboratory, where he is instructed in a series of lesions illustrating the cases under his observation.

By this method of instruction, each student comes into intimate contact with a large number of surgical patients, and is required to make a complete study of each one from every standpoint. He has constantly at his service two or more of the teaching staff to guide him in his work, and impress on him the proper methods of observation and study.

### SUMMARY.

|                           | <i>Second Year.</i> | <i>Third Year.</i> | <i>Fourth Year.</i> |
|---------------------------|---------------------|--------------------|---------------------|
| Lectures .....            | 32 hours.           | 43 hours.          | .....               |
| Recitations .....         | 10 hours.           | 63 hours.          | .....               |
| Clinics .....             | 20 hours.           | 69 hours.          | .....               |
| Sections .....            | 12 hours.           | 70 hours.          | .....               |
| Operative Surgery .....   | .....               | 55 hours.          | .....               |
| Clinical Clerkships ..... | .....               | .....              | 336 hours.          |
| Elective .....            | .....               | .....              | <i>Variable</i>     |

## DETAILS OF THE PLAN OF INSTRUCTION.

*Text-books.*—Arnhurst's *Text-book of Surgery*; Rose and Carless, *Surgery*; Choyce, *A System of Surgery*; Thompson and Miles, *Manual of Surgery*, 5th Edition; Gould, *Surgical Diagnosis*.

*Collateral Reading.*—Lexer-Bevan, *General Surgery*; Stimson, *Fractures and Dislocations*; Binnie, *Operative Surgery*, 5th Edition; Binnie, *Regional Surgery*.

### OBSTETRICS AND GYNECOLOGY.

GEORGE GRAY WARD, JR., M.D., *Professor of Obstetrics and Gynecology*.

HAROLD C. BAILEY, M.D., *Associate Professor of Obstetrics and Gynecology*.

LILIAN K. P. FARRAR, M.D., *Assistant Professor of Clinical Obstetrics and Gynecology*.

HERVEY C. WILLIAMSON, M.D., *Instructor in Obstetrics and Gynecology*.

JOHN F. McGRATH, M.D., *Instructor in Obstetrics and Gynecology*.

FRANCIS W. GRAVELLE, M.D., *Instructor in Obstetrics and Gynecology*.

HOWARD S. McCANDLISH, M.D., *Instructor in Obstetrics and Gynecology*.

CHARLES H. BAILEY, M.D., *Instructor in Gynecological Pathology*.

### OBSTETRICS.

Instruction in obstetrics will be given during the second, third, and fourth years by recitations, lectures, manikin practice, ward section work, clinics and conferences, laboratory instruction, and attendance upon cases of confinement.

**SECOND YEAR—Third Term**—*Recitations* in sections will be held by the instructors on the physiology of pregnancy, the mechanism of labor and the care of the woman during the lying-in period. Definite assignments of study from a standard text-book are made. 11 hours.

*Lectures* will be given by Professor Bailey which are illustrated by lantern slides and the exhibition of specimens and methods, and deal with the problems of menstruation, ovulation, embryology and the physiology of early pregnancy and the puerperium. The principles of the hygiene of pregnancy and the conduct of normal labor are emphasized. 11 hours.

*Lectures* will be given by Professor Ward on obstetrical anatomy and the mechanism of labor in conjunction with the preliminary studies in gynecology. 6 hours.

**THIRD YEAR—First Term**—*Recitations* in sections dealing with the pathology of obstetrics will be held by Dr. Williamson. Certain subjects are allotted for study and the student is closely quizzed on this work. This course is in the nature of a conference and discussion is encouraged. 12 hours.

*Manikin practice* is given to sections of the class and carried on in correlations with the quiz class. There is individual work by the students upon the phantoms under the close supervision and criticism of the instructors, Drs. Gravelle and McCandlish. 12 hours.

**Second Term**—Professor Bailey will give a series of illustrated lectures on the pathology and complications of pregnancy. 10 hours.

## CORNELL UNIVERSITY MEDICAL COLLEGE

**Second and Third Terms—Ward Section Work.** The sections are divided into groups of eight or ten and they spend ten sessions of two hours each in the wards of Bellevue Hospital under the direction of Professor Bailey and the instructors. The sections are opened each day by the demonstration of whatever operative material there is at hand. It is then continued by bedside instruction in the management of the pregnant and parturient woman, and the care of the new-born child. 20 hours.

Laboratory instruction is given in the Department of Anatomy and Pathology upon the histology of the vulva, uterus, ligaments, Fallopian tubes, and ovaries in the pregnant and non-pregnant conditions and upon the histology and pathology of the decidua, chorion, placenta and umbilical cord. Material is demonstrated from cases of puerperal infections and toxemias of pregnancy.

**FOURTH YEAR—First and Second Terms—Practical Instruction—**Students attend cases in labor at the Berwind Maternity Clinic and make the requisite post-partum visits. The class in sections of five or more reside in the clinic building during a period of two weeks. Each student attends from twelve to twenty cases and when possible, follows his case from the prenatal visits to the tenth day of the puerperium. The student is instructed particularly in the prenatal care. The follow-up clinic carries the mother through a period of six weeks and the child for a period of one year. The student does his work under the close control of the entire staff of instructors. Conferences are held in the Clinic and free discussion of the cases under treatment is encouraged.

Approximately 98 hours.

**Third Term—**An *elective course* in advanced obstetrics is given under the direction of Professor Bailey. The student spends eight hours a day for one month at Bellevue Hospital and observes the operative procedures and takes part in the prenatal examinations and in general ward administration.

### GYNECOLOGY.

Instruction in Gynecology is given during the second, third and fourth years by (1) Recitations and lectures, (2) Section teaching in the Out-Patient Department, (3) General operative clinics, (4) Section work in operative clinics, (5) Ward demonstrations and conferences, (6) Laboratory courses, and (7) Full time elective courses.

1. During the second year recitations and lectures are given in the third term by Professor Ward. The student is systematically taught obstetrical and gynecological anatomy and the general principles of the subject so as to give him a foundation upon which to build his clinical knowledge. Charts, models, pathological specimens, instruments, lantern slides, etc., are used to illustrate the lectures.

2. Small sections of three or four students are drilled by the instructors in methods of examination and treatment of cases in the Out-Patient Department of the Woman's Hospital and in the Cornell Clinic during the third year. In connection with the Out-Patient teaching instruction is given in gynecological cystoscopy; the technic of endoscopy, cystoscopy, catheterizations of ureters and testing of kidney efficiency as applied to gynecological cases.

## DETAILS OF THE PLAN OF INSTRUCTION.

3. A general operative clinic by Professors Ward and Farrar is held at the Woman's Hospital for the fourth year students throughout the first and second terms. Charts, blackboard drawings, clay modeling, etc., are employed before the operation is begun, to teach the principles of operative gynecology: A stereomotograph is used during the operation to throw lantern slides upon the screen to show the operative steps and to refresh the student's memory of the anatomy of the region.

4. Small sections permit students at the operation to examine the patient under anæsthesia and thus enables them to study the detail of the operation, to write up reports, and to check up the diagnosis.

5. Ward demonstrations and conferences are held by the head of the department during the first and second terms of the fourth year at the Woman's Hospital. The students are brought into contact with the patients they have seen at operation and are thus enabled to follow the post-operative course of each case. They take histories of patients awaiting operation and make pelvic examinations under guidance.

Methods of diagnosis are demonstrated and the appropriate treatment is outlined. Non-operative treatments are demonstrated during these conferences.

6. A course in pathological gynecology is given by the department of Pathology during the third year. Specimens from the museum and microscopical sections of diseased tissues are demonstrated.

Lectures on gynecological pathology and laboratory demonstrations of secretions, discharges and specimens obtained from patients who come under operation are given to sections of the fourth year class by Dr. Charles H. Bailey as a part of the course at the Woman's Hospital.

7. An elective course is given at the Woman's Hospital during the third term of the fourth year. The course provides for four students, working under supervision, as clinical clerks and assistants in the hospital from 9 A. M. to 5 P. M. daily for one month. It includes operating room work and the study of special problems.

| Obstetrics                 | SUMMARY.           |                   |                    |
|----------------------------|--------------------|-------------------|--------------------|
|                            | <i>Second Year</i> | <i>Third Year</i> | <i>Fourth Year</i> |
| Lectures .....             | 11 hours           | 10 hours          | .....              |
| Recitations .....          | 11 hours           | 12 hours          | .....              |
| Sections .....             | .....              | 32 hours          | .....              |
| Practical Obstetrics ..... | .....              | .....             | 98 hours*          |

| Gynecology                                | SUMMARY.           |                   |                    |
|---|--------------------|-------------------|--------------------|
|   | <i>Second Year</i> | <i>Third Year</i> | <i>Fourth Year</i> |
| Lectures and Recitations.....             | 22 hours           | .....             | .....              |
| Sections .....                            | .....              | 10 hours          | .....              |
| Clinics .....                             | .....              | .....             | (Elective)         |
| Ward Demonstrations and Conferences ..... | .....              | .....             | 102 hours          |

\* Approximately.

*Text-books.*—Williams, *Obstetrics*; Ashton, *Gynecology*; Polak, *Gynecology*; Anspach, *Gynecology*.



## CORNELL UNIVERSITY MEDICAL COLLEGE

### DEPARTMENT OF PATHOLOGY.

**General Pathology, Pathological Anatomy, Experimental Pathology,  
Chemical Pathology.**

JAMES EWING, M.D., *Professor of Pathology.*

OTTO H. SCHULTZE, M.D., *Professor of Medical Jurisprudence.*

ELISE S. L'ESPERANCE, M.D., *Assistant Professor of Pathology.*

HENRY R. MULLER, M.D., *Instructor in Pathology.*

CHARLES S. B. CASSASSA, M.D., *Instructor in Pathological Anatomy.*

MORTON C. RYDER, M.D., *Instructor in Pathological Anatomy.*

JAMES DENTON, M.D., *Assistant in Pathological Anatomy.*

BEATRICE FAIRBANKS, M.D., *Assistant in Neuro-Pathology.*

### GENERAL PATHOLOGY.

**Facilities.**—The department of pathology occupies the main part of the fourth floor of the college building, in which are a class room and working museum, demonstration room for pathological anatomy with refrigerating plant, a preparation room for pathological histology, four private laboratory rooms for officers of the department, an animal hospital, and the library.

Pathological material is drawn from New York Hospital, Bellevue Hospital and the City Morgue, Memorial Hospital for Cancer and Allied Diseases, and other Hospitals.

The museum contains a selected collection of 3000 specimens illustrating most of the common and many rare pathological lesions. It is especially rich in lesions of bones and in tumors.

The histological cabinets contain about 20,000 slides arranged anatomically and cross-indexed for special diseases. There are also 100 sets of demonstration slides for undergraduate teaching purposes.

The library contains 8,000 bound volumes of current periodicals in English, French, German and Italian, and 5,000 selected reprints and monographs. There is also a students' library of recent text-books.

A volume is issued jointly by the Departments of Pathology, Bacteriology, and Hygiene, in which are collected the main studies coming from these laboratories. The Department of Pathology with the collaboration of heads of other departments conducts the work of the Huntington Fund for Cancer Research of the Memorial Hospital, and at appropriate times issues reports of these studies.

**Instruction.**—The course of instruction in pathology begins in the second term (January) of the second year, with lectures and gross and microscopical demonstrations, illustrating degeneration, inflammation, repair of tissue, and the infectious granulomas. At the same time the student observes the external phenomena of disease in demonstrations conducted by the Departments of Medicine and Surgery, reads about them in text-books, and prepares recitations on these topics. Coincidentally, biweekly demonstrations of gross pathological material collected from autopsies are conducted.



## DETAILS OF THE PLAN OF INSTRUCTION.

The introduction of each topic is made by individual demonstration of museum specimens followed by the study of microscopic sections. Further co-ordination of work is accomplished by having the course in bacteriology proceed at the same time. The third term is occupied by the subject of tumors, and diseases of the lungs. The first term of the third year is devoted to Special Pathology of the organs, constitutional diseases, gynecological pathology, and neuropathology.

Pathological Anatomy is continued through the three terms of the course in general pathology, and in the fourth year the student performs autopsies. Various elective courses are offered in the latter portion of the fourth year.

### SYNOPSIS OF COURSES.

**General Pathology.**—Lectures, gross and microscopical demonstrations in:

(a) Degeneration, Inflammation, Regeneration, Granulomas, 70 hours. Required in second term of second year. (b) Tumors and Special Pathology of Lungs, 88 hours. Required in third term of second year. (c) Special Pathology of Constitutional Diseases, etc. Gynecological Pathology, Neuropathology, 88 hours. Required in first term of third year. Prof. Ewing, Drs. L'Esperance, Muller and Fairbanks.

**Pathological Anatomy.**—Demonstrations of gross lesions in material collected from autopsies, gross pathological diagnosis, pathogenesis of symptoms and lesions. 84 hours. Required in second and third years.

**Autopsy Technique.**—Section teaching at Morgue. Required in fourth year. Dr. Ryder.

**Medico-legal Pathology.**—The medico-legal relations of pathology are extensively illustrated in the material collected in the morgue and in the museum, and special attention is devoted to this subject in the third and fourth years. Prof. Schultze and Dr. Cassassa.

**Recitations, Examinations.**—Written recitations are conducted monthly throughout the year. Written and practical examinations are held at the end of the second year and at the termination of the course.

**Electives.**—In the latter part of the fourth year the student may return to the laboratory and pursue advanced courses in several fields to be determined on consultation. The following courses are specifically recommended.

1. Pathological technique.
2. Tumor diagnosis and General Oncology.
3. Gynecological Pathology.
4. Dermatopathology.
5. Neuropathology.
6. Surgical Pathology.
7. Special pathology and study of groups of cases with the production of a thesis.

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Most of these elective courses will require the student's entire time for one to three months, but may be continued into the summer.

**Special Students and Special Degrees.**—Opportunity is afforded to a limited number of students to engage in original research in selected topics under the direction of an instructor. The student must contract to devote his entire time, in the usual sense, to the pursuit of the problem, and the results of the work may be published under the auspices of the department. The work may be pursued in the college laboratories, in the Loomis Laboratory, at the New York Hospital, or at the Memorial Hospital in cancer research.

Under the conditions laid down in the Graduate School of Medicine, the student may obtain the degree of Ph.D. in Pathology.

### CANCER RESEARCH.

Since 1904 the work of the Huntington Fund for Cancer Research has been located in the laboratories of Cornell University Medical College under the general direction of the Department of Pathology, and with the collaboration of heads of other departments. Later through the support of Dr. James Douglas, and the co-operation of the Board of Managers, it has been extended to the laboratories of the Memorial Hospital. A laboratory building accommodating pathology, chemistry and physics has recently been erected.

The organization of this work includes pathology, Prof. Ewing; bacteriology, Prof. Torrey; immunology, Dr. Coca; chemistry, Prof. Benedict; biology, Prof. Stockard; pathology, Prof. L'Esperance.

Clinical studies in the diagnosis, natural history, and treatment of neoplastic diseases are conducted in the hospital by the members of the Staff. The general conduct of the ward service is in charge of Dr. Wm. S. Stone, Clinical Director of Cancer Research. The Radium Department is in charge of Dr. Douglas Quick. Other special departments are conducted by Drs. B. S. Barringer, Burton J. Lee and others. The radium laboratory possesses four grams of radium metal, supplied by the National Radium Institute through the late Dr. James Douglas. The radium laboratory is in charge of Mr. Giacchino Failla, Physicist, and four assistants. The X-ray Department is in charge of Dr. Ralph E. Herendeen, Roentgenologist. The physics department also enjoys the services of Prof. J. S. Shearer, Consulting Physicist. Prof. Walter F. Wilcox is Consulting Statistician.

#### SUMMARY.

|                            | <i>Second Year.</i> | <i>Third Year.</i> | <i>Fourth Year.</i> |
|----------------------------|---------------------|--------------------|---------------------|
| General Pathology .....    | 70 hours            | .....              | .....               |
| Special Pathology .....    | 88 hours            | 88 hours           | .....               |
| Pathological Anatomy ..... | 62 hours            | 22 hours           | .....               |
| Autopsy Technics .....     | .....               | .....              | Variable            |

## DETAILS OF THE PLAN OF INSTRUCTION.

### BACTERIOLOGY.

WILLIAM J. ELSER, M.D., *Professor of Bacteriology.*

ARTHUR F. COCA, M.D., *Assistant Professor of Immunology.*

ROBERT A. COOKE, M.D., *Assistant Professor of Applied Immunology.*

GEORGE W. WHEELER, M.D., *Instructor in Bacteriology.*

ALFRED RAHE, *Instructor in Bacteriology.*

OLIN DEIBERT, A.M., *Assistant in Immunology.*

#### I. *Bacteriology.*

The subject is taught in the second year in two parts. Part I includes the preparation of culture media, the principles of sterilization and disinfection, the methods of isolation and differentiation of bacterial species and a study of their bio-chemical behaviour. Part II includes a detailed study of the pathogenic bacteria; special attention being paid to their relation to diseases of man. This work is supplemented by lectures and conferences dealing with the theoretical phases of bacteriology and immunology.

During the fourth year 11 hours are devoted to the study of the bacteriology of wounds; pathogenic anaerobic bacteria and the efficiency of common antiseptics receive special consideration.

#### II. *Immunology.*

A. A didactic course in immunology with demonstrations is given to second year students following the course in bacteriology.

B. An elective laboratory course in immunology and serum study is offered to fourth year students. This course is designed primarily to familiarize the student with the fundamental immunological and serological principles. It includes also the technique involved in the recognized clinical and forensic application of those principles, viz., Widal, precipitin, Wassermann and Schick test, reciprocal blood tests preliminary to transfusion, dermal and ophthalmic tests in hayfever and other forms of sensitization, etc.

#### III. *Applied Immunology.*

A. A lecture course to third year students is given in conjunction with the Department of Medicine on diagnosis and specific treatment of human hypersensitiveness.

B. An elective clinical course in applied immunology is offered to fourth year students in conjunction with IIB. This course consists of the practical study of various forms of hypersensitiveness in man, ample material for which is provided in the special clinic, two evenings (4 hours) for one week at the New York Hospital.

#### SUMMARY.

|                    | <i>Second Year.</i> | <i>Fourth Year.</i> |
|--------------------|---------------------|---------------------|
| Bacteriology ..... | 150 hours           | .....               |
| Immunology .....   | 22 hours            | 60 hours*           |

\* Elective.

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

### NEUROLOGY.

- CHARLES L. DANA, M.D., *Professor of Clinical Medicine, Department of Neurology.*  
 R. FOSTER KENNEDY, M.D., *Associate Professor of Clinical Medicine, Department of Neurology.*  
 CLARENCE P. OBERNDORF, M.D., *Clinical Instructor in Medicine, Department of Neurology.*  
 JUNIUS W. STEPHENSON, M.D., *Clinical Instructor in Medicine, Department of Neurology.*  
 FREDERICK W. STECHMANN, M.D., *Clinical Instructor in Medicine, Department of Neurology.*  
 WALTER M. KRAUS, M.D., *Clinical Instructor in Medicine, Department of Neurology.*  
 THOMAS K. DAVIS, M.D., *Clinical Instructor in Medicine, Department of Neurology.*

Instruction in Neurology begins in the last semester of the Second Year. During this period the students are given instruction in the methods of examining neurological cases and made to review the anatomy and physiology of the nervous system with special reference to neurological symptoms. In the Third Year the students are given weekly clinical lectures and conferences and the class, divided into sections, is given practical instruction in the examination of cases, history-taking and electrotherapeutics, the work being done in the dispensary of the College. In the Fourth Year, the students are given clinical instruction in the Neurological wards of Bellevue Hospital, and this work is kept up until the 1st of April. In the last two months of the Fourth Year optional courses in Neurology are given.

#### SUMMARY.

|                | <i>Second Year.</i> | <i>Third Year.</i> | <i>Fourth Year.</i> |
|----------------|---------------------|--------------------|---------------------|
| Lectures ..... | 5 hours             | .....              | .....               |
| Clinics .....  | 6 hours             | 32 hours           | .....               |
| Sections ..... | .....               | 3 hours            | 36 hours            |

*Text-book.*—Dana, *Diseases of the Nervous System.*

*Collateral Reading.*—Works on nervous diseases by Sachs, Starr, Church and Peterson, Jelliffe and White, Oppenheim, Bing, and Stewart.

### PSYCHIATRY.

- GEORGE H. KIRBY, M.D., *Professor of Clinical Medicine, Department of Psychiatry.*  
 JOHN T. MACCURDY, M.D., *Lecturer on Clinical Medicine, Department of Psychiatry.*

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY

CLARENCE O. CHENEY, M.D., *Instructor in Clinical Medicine, Department of Psychiatry.*

SANGER BROWN, M.D., *Instructor in Clinical Medicine, Department of Psychiatry.*

GEORGE S. STEVENSON, M.D., *Clinical Instructor in Medicine, Department of Psychiatry.*

Instruction in psychiatry is given in the third and fourth years.

I. Eleven lectures on medical psychology which will serve as an introductory course to the study of clinical psychiatry. The student will become acquainted with the principles of abnormal mental action as it occurs in the neuroses and the psychoses.

II. Eleven lectures and eleven clinical demonstrations covering the main facts of modern psycho-pathology including the examination, observation, diagnosis and treatment of mental disorders. Special emphasis will be placed on the earliest manifestations of mental diseases and their management while under the care of the general practitioner. An effort will be made to give the student a comprehensive view of the whole field of psychiatry and to point out the importance of mental factors in all diseases and in the various social problems of the present day. The clinical demonstrations and practical exercises will be given on Ward's Island, which is reached by ferry from the foot of East 116th Street. The facilities of the Psychiatric Institute and the clinical material of the Manhattan State Hospital are available for teaching purposes.

III. A fourth year elective course will be offered to a limited number of students. This will afford an opportunity for examination and study of patients in the wards of the Manhattan State Hospital. An opportunity will be offered these students to become familiar with the various psychometric tests useful in establishing a diagnosis of mental deficiency and to apply the principles of psycho-analysis in the study of the psychoses.

### SUMMARY.

|                                      | <i>Third Year.</i> | <i>Fourth Year.</i> |
|--------------------------------------|--------------------|---------------------|
| Lectures on Medical Psychology....   | 10 hours           | .....               |
| Lectures on Psychiatry .....         | 11 hours           | .....               |
| Clinics and Practical Exercises..... | 33 hours           | .....               |
| Advanced Psychiatry .....            | .....              | Elective            |

### PEDIATRICS.

LOUIS C. SCHROEDER, M.D., *Associate in Clinical Medicine, Department of Pediatrics. (Acting Head of Department.)*

JEREMIAH S. FERGUSON, M.D., *Assistant Professor of Clinical Medicine, Department of Pediatrics.*

JOSEPH C. ROPER, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

WILLIAM PETER STRAIN, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*



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JESSE F. SAMMIS, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

CHARLES LANG, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

MAY G. WILSON, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

PHILIP STIMSON, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

MORRIS FRIEDSON, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

BERNARD S. DENZER, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

HERBERT F. JACKSON, M.D., *Instructor in Clinical Medicine, Department of Pediatrics.*

HARRY BAKWIN, M.D., *Clinical Assistant in Medicine, Department of Pediatrics.*

The aim of this department will be to give thorough instruction in the fundamental principles of Pediatrics.

The student will be given opportunity to become familiar with the diseases peculiar to infants and children, and will receive special instruction in infant feeding and hygiene, and the therapeutics of children's diseases.

*Third Year.* There will be a clinical lecture once a week during the second and third terms. This will comprise a systematic consideration of the subject of Pediatrics, supplemented by the demonstration of illustrative cases. The students will be assigned in sections for recitations in which the field of pediatrics will be consecutively considered.

Sections of students will be assigned to the dispensary clinic. They will examine and suggest treatment for patients under direction of the instructor in charge.

A course of instruction in acute contagious diseases will be given at the Willard Parker Hospital. The student will have opportunity to become familiar with the diagnosis, care and treatment of such diseases.

*Fourth Year.* The work during the fourth year will be entirely practical. Students will serve as clinical clerks in the Children's wards of the New York and Nursery and Child's Hospitals. Each student will be on duty from 2 to 5 P. M. three times a week for three weeks. This work will include a careful study of patients by the students, ward rounds and instruction by the head of the department or one of the instructors.

During the latter part of the fourth year, there will be an elective course. This will comprise work in the wards of the New York Nursery and Child's Hospital, the New York Hospital and the Willard Parker Hospital. Thirteen hours a week for four consecutive weeks will be given to this course.

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

### SUMMARY.

|                           | <i>Third Year.</i> | <i>Fourth Year.</i> |
|---------------------------|--------------------|---------------------|
| Clinics .....             | 42 hours           | .....               |
| Recitations .....         | 22 hours           | .....               |
| Sections .....            | 24 hours           | .....               |
| Clinical Clerkships ..... | .....              | 36 hours            |
| Elective .....            | .....              | 60 hours            |

*Text-books.*—Holt, *Diseases of Infancy and Childhood*; Griffiths, *Diseases of Children*.

*Collateral Reading.*—Still, *Common Disorders and Diseases of Childhood*; Grulee, *Infant Feeding*; Morse and Talbot, *Diseases of Nutrition and Infant Feeding*; Fischer, *Diseases of Infancy and Childhood*.

### UROLOGY.

EDWARD L. KEYES, JR., M.D., *Professor of Clinical Surgery, Department of Urology.*

HOWARD S. JECK, M.D., *Instructor in Clinical Surgery, Department of Urology.*

JULIUS J. VALENTINE, M.D., *Clinical Instructor in Surgery, Department of Urology.*

MAX S. ROHDE, M.D., *Clinical Instructor in Surgery, Department of Urology.*

The courses in this department are required of students during the third and fourth year. They are designed to give instruction in diagnosis and treatment of the surgical diseases of the urinary and male genital organs.

**Clinic.**—Third Year. A two-hour clinic will be given in Bellevue Hospital during the second term by Professor Keyes. At this clinic typical cases are demonstrated and discussed by the students themselves. Cases are followed during their stay in the Hospital and by means of a return clinic throughout their convalescence.

**Lectures.**—Third year. A course of ten lectures will be given to the third-year class during the first term of the college session. •

**Section Teaching.**—Third year. The third-year class will be divided into sections of small size for instruction in the College Dispensary during the first and second terms.

**Hospital Work.**—Students are assigned to clerkships in the wards of Bellevue Hospital and study the cases in the wards devoted to Urology continuously for one week. They are expected to follow these cases to a conclusion just as is done in the wards devoted to general surgery. Thus, during a service as surgical clerks, opportunity is afforded for the complete study of a considerable number of cases in the urological wards.

### SUMMARY.

|                           | <i>Third Year.</i> | <i>Fourth Year.</i> |
|---------------------------|--------------------|---------------------|
| Clinics .....             | 20 hours           | .....               |
| Sections .....            | 10 hours           | .....               |
| Lectures .....            | 11 hours           | .....               |
| Clinical Clerkships ..... | .....              | 66 hours            |

*Text-book.*—Keyes.

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*Collateral Reading.*—Cabot, Thompson-Walker.

### DERMATOLOGY.

HANS J. SCHWARTZ, M.D., *Professor of Clinical Medicine, Department of Dermatology.*

OSCAR L. LEVIN, M.D., *Instructor in Clinical Medicine, Department of Dermatology.*

ANDREW J. GILMOUR, M.D., *Instructor in Clinical Medicine, Department of Dermatology.*

Instruction in Dermatology and Syphilology will be given by Doctor Schwartz and his assistants. No teaching will be given didactically, but the cutaneous diseases will be demonstrated on the living subject. Abundance of material for such instruction is obtainable, and the student can thoroughly familiarize himself with the more common as well as with the rarer diseases of the skin by actual personal touch and observation. Attention is particularly paid to the diagnosis and the etiology of skin diseases, but their therapeutics also receive due consideration. Instruction will also be given in the intravenous and other forms of treatment by salvarsan and neosalvarsan.

#### SUMMARY.

|                | <i>Second Year</i> | <i>Third Year</i> | <i>Fourth Year</i> |
|----------------|--------------------|-------------------|--------------------|
| Sections ..... |                    | 10 hours          | Elective           |
| Clinic .....   | 11 hours           | 10 hours          | Elective           |

*Text-books.*—Stelwagon, *Diseases of the Skin*; Crocker, *Dermatology*.

### LARYNGOLOGY AND RHINOLOGY.

HARMON SMITH, M.D., *Professor of Clinical Surgery, Department of Laryngology and Rhinology.*

WALTER C. MONTGOMERY, M.D., *Instructor in Clinical Surgery, Department of Laryngology and Rhinology.*

WALTER C. HOWARD, M.D., *Clinical Instructor in Surgery, Department of Laryngology and Rhinology.*

The professor of the department gives instruction to the third year students by didactic lectures and clinical exercises. In this work he is assisted by the instructor and his other assistants. The lectures are illustrated by plates, models and stereopticon projections.

A Practical Course for the removal of tonsils and adenoids is given each section at the Manhattan Eye, Ear and Throat Hospital.

Each student is also individually instructed in the ordinary methods of examination of the nose and throat and shown the recent measures employed in laryngoscopy and bronchoscopy.

#### SUMMARY.

|                | <i>Third Year.</i> | <i>Fourth Year.</i> |
|----------------|--------------------|---------------------|
| Lectures ..... | 11 hours           | .....               |
| Sections ..... | 10 hours           | Elective            |
| Clinic .....   | .....              | Elective            |

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

*Text-books.*—Wright and Smith, *Diseases of the Nose and Throat*.

*Collateral Reading.*—St. Clair Thomson, *Diseases of the Nose and Throat*; Knight, *Diseases of the Nose and Throat*.

### OPHTHALMOLOGY.

ROBERT G. REESE, M.D., *Professor of Clinical Surgery, Department of Ophthalmology*.

BERNARD SAMUELS, M.D., *Assistant Professor of Clinical Surgery, Department of Ophthalmology*.

GEORGE W. VANDEGRIFT, M. D., *Clinical Instructor in Surgery, Department of Ophthalmology*.

CHARLES A. DRAKE, M.D., *Clinical Instructor in Surgery, Department of Ophthalmology*.

AQUIN S. KELLY, M.D., *Clinical Instructor in Surgery, Department of Ophthalmology*.

CONRAD BERENS, M.D., *Clinical Instructor in Surgery, Department of Ophthalmology*.

Instruction in Ophthalmology is given throughout the third year. The class is divided into small sections for work in the College Dispensary. Each student receives individual instruction in the use of the ophthalmoscope. External diseases of the eye and anomalies of the ocular muscles are covered in a practical way. Some time is devoted to errors of refraction and the fitting of glasses.

During the latter part of the year the professor of the department gives clinical lectures to the entire class, the patients coming from the College Dispensary and the New York Eye and Ear Infirmary. These lectures are illustrated with stereopticon pictures.

Students may take Ophthalmology as an elective course, in the fourth year. To these, in addition to the clinical work, operative practice is given on the eyes of kittens. An opportunity to witness operations on the living, by the professor and the instructors, is provided at the New York Eye and Ear Infirmary. The histo-pathology of the eye is taught by microscopical sections prepared for the purpose.

#### SUMMARY.

|                | <i>Third Year.</i> | <i>Fourth Year.</i> |
|----------------|--------------------|---------------------|
| Sections ..... | 20 hours           | .....               |
| Clinic .....   | 11 hours           | Elective            |

*Text-book.*—De Schweinitz.

*Collateral Reading.*—Fuchs, May.

### OTOLOGY.

FREDERICK WHITING, M.D., *Professor of Clinical Surgery, Department of Otology*.

GEORGE B. MCAULIFFE, M.D., *Clinical Instructor in Surgery, Department of Otology*.

STEWART L. CRAIG, M.D., *Clinical Assistant in Surgery, Department of Otology*.



## CORNELL UNIVERSITY MEDICAL COLLEGE

THOMAS A. MULCAHY, M.D., *Clinical Assistant in Surgery, Department of Otology.*

For clinical instruction in Otology, the third-year class is divided into sections. Each student receives practical instruction in the College Dispensary from Professor Whiting and his assistants in the examination of patients, the use of the otoscope, and the various methods of testing the hearing. The student is permitted to examine patients and after a probationary period, to prescribe for them and thus gradually assume the duties of a clinical assistant. The students also have an opportunity of witnessing the more important operations in aural surgery, including intracranial complications, at the New York Eye and Ear Infirmary.

|                |                    |
|----------------|--------------------|
|                | <i>Third Year.</i> |
| Lectures ..... | 8 hours            |
| Sections ..... | 10 hours           |

*Text-book.*—Bacon, *On the Ear.*

*Collateral Reading.*—Poltzer, *Diseases of the Ear*; Macewen, *Pyogenic Infective Diseases of the Brain and Spinal Cord*; Whiting, *The Modern Mastoid Operation.*

### ORTHOPEDIC SURGERY.

CHARLTON WALLACE, M.D., *Professor of Clinical Surgery, Department of Orthopedic Surgery.*

ARTHUR H. CILLEY M.D., *Assistant Professor of Clinical Surgery, Department of Orthopedic Surgery.*

IRVIN BALENZWEIG, M.D., *Clinical Instructor in Surgery, Department of Orthopedic Surgery.*

WILLIAM V. HEALEY, M.D., *Clinical Instructor in Surgery, Department of Orthopedic Surgery.*

Instruction in this department is carried on in the third and fourth years:

I. In the first term of the third year:

(a) Didactic and clinical lectures are given for one hour a week to the entire class in the college lecture room. Professors Wallace and Cilley.

(b) The students work in sections in the College Dispensary for ten hours in the examination and treatment of patients. Prof. Cilley.

II. In the fourth year:

(a) Each section of the class receives bedside instruction in congenital and acquired deformities in the wards of the Hospital for the Ruptured and Crippled, two mornings each week for four weeks.

(b) One morning a week for four weeks each section receives instruction in industrial surgical conditions, at the Hospital for Industrial Surgery. Dr. Healey.

(c) Students are taught methods of examination and are required to examine the patient, giving a concise resumé of the history, diagnosis and treatment to be employed in each case. Informal recitations and discussions are held for one hour following the case work.



## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

### SUMMARY.

|                 | <i>Third Year.</i> | <i>Fourth Year.</i> |
|-----------------|--------------------|---------------------|
| Lectures .....  | 11 hours           | .....               |
| Sections .....  | 10 hours           | .....               |
| Ward Work ..... | .....              | 36 hours            |

*Text-books.*—Whitman and Soutter's *Operative Orthopedics*.

### ROENTGENOLOGY.

HARRY M. IMBODEN, M.D., *Professor of Roentgenology.*

RALPH EUGENE HERENDEN, M.D., *Instructor in Roentgenology.*

The course in this department consists of the demonstration of the apparatus and the method of making Roentgen examination of various portions of the body. The time is largely spent in considering the scope and accuracy of this method of diagnosis in all branches of medicine. This will include the study and interpretation of Roentgenograms showing foreign bodies, fractures, dislocations, and bone and joint lesions, renal, ureteral, and vesical calculi and other lesions which can be detected Roentgenographically, including pyelography. Lesions of the skull, the study of the teeth, infections of the accessory sinuses, together with the Roentgeno-diagnosis of joint lesions produced by these infections will be considered. Respiratory lesions—abscesses, tumors of the lungs, mediastinal tumors—are carefully considered, special attention being devoted to the early diagnosis of pulmonary tuberculosis.

Lesions of the gastro-intestinal tract such as strictures and diverticula of the œsophagus, and growths, kinks and adhesions of the colon will be discussed. Particular emphasis will be given to the motor phenomena of the stomach, and the physiology of the pylorus as observed by this method of examination; to the diagnosis of gastro-duodenal lesions such as carcinoma, ulcers of the stomach and duodenum; and to gall-bladder infection, with or without calculi.

As far as possible this work will be carried on in conjunction with the other clinical departments, all students having the opportunity of studying individual cases clinically before the Roentgenographic study, then comparing the clinical findings, the Roentgen findings, and if possible the surgical findings in such cases as require surgical procedure.

After having had demonstrated to them a series of plates on allied subjects the students are in turn required to re-interpret these Roentgenograms to the class. This method has proved exceedingly valuable and will be followed to a great extent.

Finally, the course will conclude with lectures on Roentgeno-therapy covering the treatment of both superficial and deep-seated lesions, describing the cross-fire method, the advantage of high penetration with the Coolidge tube, and methods of dosage in the application of rays with or without filters. These lectures will be accompanied by a demonstration of cases which have been so treated.

## CORNELL UNIVERSITY MEDICAL COLLEGE

### SUMMARY.

|                | <i>Third Year.</i> | <i>Fourth Year.</i> |
|----------------|--------------------|---------------------|
| Lectures ..... | 22 hours           | Elective            |

### HYGIENE.

JOHN C. TORREY, Ph.D., *Professor of Hygiene.*

MORTON C. KAHN, A.M., *Instructor in Hygiene.*

Instruction in some of the many branches of hygiene and preventive medicine is given in connection with certain of the courses pursued in the several departments of Bacteriology, Chemistry, Physiology, Pathology and Medicine.

The more distinctive features of this subject, however, are presented in a course of lectures and demonstrations during the third term of the second year. A certain amount of laboratory work is also required of each student. In addition time has been allotted for field work through which the student may acquire experience in making sanitary surveys and visit localities in the vicinity where the practical application of sanitary devices and hygienic methods may be observed.

### SUMMARY.

|                                | <i>Second Year.</i> |
|--------------------------------|---------------------|
| Lectures and Conferences ..... | 22 hours            |
| Laboratory Work .....          | 44 hours            |
| Field Work .....               | 22 hours*           |

\* Eleven afternoons are assigned for field excursions.

*Text-book.*—Rosenau, *Preventive Medicine and Hygiene*; Park, *Public Health and Hygiene*.

*Collateral Reading.*—MacNutt, *Manual for Health Officers*; Wood, *Sanitation Practically Applied*; Chapin, *Sources and Modes of Infection*.

### MEDICAL JURISPRUDENCE.

OTTO H. SCHULTZE, M.D., *Professor of Medical Jurisprudence.*

A course of lectures from the standpoint of the medico-legal autopsy, with demonstration of material, will be given by Professor Schultze. This course will cover autopsy technique in medico-legal cases, the autopsy protocol, and laboratory methods for establishing the proof of the cause of death in cases of accident, suicide, and homicide; also, the forensic aspect of the subject in cases of indemnity, liability and criminal prosecution.

The clinical aspects of the subject are covered in the regular course of study by several departments and by special lectures. The responsibilities of the physician towards the insane and their relatives and the general public, and the medico-legal aspects of mental deficiency are discussed by Professor Kirby. In the course on Obstetrics Professor Edgar takes up the moral and legal side of rape, feigned and unconscious pregnancy, what constitutes a "live birth," feigned or unconscious delivery, injury to the

## SPECIAL DEPARTMENTS OF MEDICINE AND SURGERY.

fœtus during precipitate labor, post-mortem delivery and the diagnosis of recent delivery. The medico-legal aspects of Toxicology are fully covered during the course in Pharmacology by Professor Hatcher.

### SUMMARY.

*Third Year.*

Lectures ..... 21 hours

(See also Departments of Pharmacology, Obstetrics and Psychiatry.)

## MILITARY SCIENCE AND TACTICS.

JOHN M. HEWITT, Major, M.C., U. S. Army, A.M., M.D., *Professor of Military Science and Tactics.*

The course extends over four years (two basic and two advanced) and is designed to prepare students for commissions in the Medical Section of the Officers Reserve Corps, U. S. Army, upon graduation in Medicine.

Instruction consists of didactic lectures, graphic and practical demonstrations at the College, and one summer camp at the Field Service School at Carlisle, Pa., in which actual field conditions are simulated; all of which touches every important phase of medico-military science. The course includes, in part, the following:

Organization and Administration Military Forces.

Military Law and Military Art.

Organization, Administration and Personnel of the Medical Department, U. S. Army, in Peace and War.

Medical Tactics and Problems. Care of Sick and Wounded.

Equipment, Transportation and Supply of Hospitals.

Military Hygiene and Sanitation.

Military Methods of Controlling Disease and Epidemics.

The course can be shortened by allowing credit to students who have already had competent courses of military training elsewhere.

When a student attains the advanced course, the government gives him the money value of a ration during the session, amounting to about \$.40 per diem. When in attendance at the Summer Camp, there is an allowance of \$1.00 per diem, with transportation to and from Camp, and a ration added.

FOURTH YEAR ELECTIVES.

SESSION OF 1921-1922.

March 27th to May 27th, 1922.

Students will register their courses at the Secretary's office on or before February 1st.

**A. ANATOMY.**

- I. General Histology. Dr. Chambers, 2 months. Mondays, Wednesdays, Fridays, 9-12. 3-6 students.
- II. Phases of Histogenesis. Dr. Chambers. 2 months. Tuesdays and Thursdays, 10-12. 3-6 students.
- III. Anatomy of the Infant. Dr. Stockard. 2 months. Mondays, Wednesdays, Thursdays, Fridays, 2-5 P. M. 1-4 students.
- IV. Experimental Embryology. Dr. Stockard. 2 months. Tuesdays, 2-3 P.M. Not less than 6 students.
- V. Regional Anatomy. Dr. Morrill. 2 months. Mondays and Wednesdays, 9-12. 3-6 students.
- VI. Neuro-Anatomy. See Neurology.

**Py. PHYSIOLOGY.**

- I. Calorimeter Investigation. Dr. Lusk. April only. 4 weeks. 9 A.M.-1 P.M. daily. 2 students.
- II. Electrocardiography. Dr. Edwards. 12 weeks. 1-5 P.M. daily. 1-4 students.

**C. CHEMISTRY.**

- I. Chemical Pathology. Selected work in Blood Analysis. Dr. Benedict. 1 month periods. Tuesdays and Thursdays, 10-1. (Hours assigned are subject to adjustment at students' request). 1-4 students.

**Pr. PHARMACOLOGY.**

- I. Pharmacology of Cardiac Drugs and Application in Ward Cases. Drs. Hatcher and Eggleston. 2-week periods. Monday, Wednesday, Friday, 2-5 P. M. 4-12 students.

**M. MEDICINE.**

- I. Clinical Clerks. Drs. Conner, Foster and Stillman. New York Hospital. 1 month periods. Daily, all day. 5 students.
- II. Physical Diagnosis of Diseases of the Chest. Dr. Warfield T. Longcope. Bellevue Hospital. April or May. Tuesday and Thursday, 2-5 P. M. Students are expected to spend at least two mornings per week preparing cases. Open to fourth year students and graduates. 5 students.

## FOURTH YEAR ELECTIVES

- III. Advanced Course in Metabolism Methods. Given in conjunction with the Department of Chemistry. Drs. DuBois, Benedict, Franke, Barr, Richardson and Blau. Bellevue Hospital and Cornell Medical College. The course may be divided into one-month periods (two months' attendance is preferable). Three Undergraduates and three Graduates.

During the first month students will study methods of respiratory physiology and chemistry in the chemical laboratory. Instructions will include the use of the Henderson & Haldane gas analysis apparatus, methods of determining oxygen and CO<sub>2</sub> contents of blood and plasma by means of Van Slyke pipette, and nitrogen and sugar determination in blood and urine. Dr. Benedict will teach the significance and technique of chemical examination of blood and urine.

During the second month students will study cases in the Metabolism Ward, learn management of diets, technique of the Tissot apparatus and respiratory calorimeter, and the clinical application of the various methods and tests.

- IV. Ambulatory Medicine. Dr. Bradbury. College Clinic.  
1. One month period. Every day except Saturday, 1:30-4 P. M. four students.  
2. One month period. Tuesday and Friday, 5-7:30 P. M. four students.
- V. Fluoroscopy of the Gastro-Intestinal Tract. Dr. Holland. New York Hospital. 1 month periods. Tuesday and Friday, 4-6 P.M. 6 students.
- VI. Electro-Cardiography and Polygraphy. Interpretation of the electro-cardiogram and the use of the polygraph and the interpretation of its records. Dr. Pardee. New York Hospital. 1 month periods. Monday and Friday, 3-5 P.M. 5 students.
- VII. Diagnosis and Treatment of Heart Failure. Dr. Eggleston. Bellevue Hospital. 1 month periods. Monday and Wednesday, 2-4:30 P. M. 6 students.

## CP. CLINICAL PATHOLOGY.

- I. Clinical Bacteriology and Vaccine Therapy. Daily, 9-1, April and May. Number of hours, optional. Must take at least 25 actual hours. Dr. Thro. 10 students.
- II. Complement Fixation. Every Wednesday afternoon, 2:30 to 5:30. April and May. 1 to 5 students. Dr. Thro.
- III. Advanced Clinical Pathology of Urine and Blood. Daily, 9-1. April and May. Number of hours, optional. Must take at least 50 hours. Drs. Thro and Richards. 10 students.

## S. SURGERY

- I. Clinical Clerks. Dr. Hartwell. Bellevue Hospital. 1 month periods. All day. 4 selected students.
- II. Surgical Pathology. Bellevue Hospital. Laboratory and wards. 1 month periods. All day. 2 students.



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III. Clinical Clerks. Dr. Gibson. New York Hospital. 1 month periods.  
All day. 4 students

IV. Cornell Clinic. Daily, 1-4 P. M. for 1 month. 2 students. Dr.  
Hoguet.

### Ob. OBSTETRICS.

1. Clinical Clerkship in Obstetrics. Drs. Bailey and Williamson.  
Bellevue Hospital. 1 month only. Full time. 9 A.M.-5 P.M. 2  
students.

### Pt. PATHOLOGY.

I. Tumor Diagnosis. Dr. Ewing. 2 months, 5 days. 1-5 P.M.  
daily, except Saturdays. 5 students.

II. Pathological Thesis. Dr. Ewing. 2 months. All day, except  
Saturday. Saturdays, 9 A.M.-12 M. 5 students.

III. Gynecological Pathology. Dr. L'Esperance. 1 month. Monday,  
Wednesday, Friday, 3 to 5 P. M.

IV. Neuropathology. Dr. Fairbanks. 2 months. Daily except Saturday  
1 to 5 P.M. 2 students. 2 months.

### B. BACTERIOLOGY.

I. Experimental Laboratory Course in General and Applied Im-  
munology. By Dr. A. F. Coca, at the New York Hospital.

(1) Experimental analysis of natural immunity to  
diphtheria.

(A) Schick test (in human beings).

(B) Cellular immunity (in the rat).

(1a) Active immunization to diphtheria (in human  
beings).

(2) Pirquet test.

(3) Method of testing antitoxic sera.

(4) Grouping of human individuals with respect to iso-  
hemagglutinins.

(5) Practical test of the blood, as performed previous to  
the operation of blood transfusion.

(6) The characteristics of immunity reactions.

(7) Practical study of bacterial agglutinins, precipitins,  
hemolysins and complement.

(8) Forensic test for human blood.

(9) Specific complement fixation (Bordet-Gengou).

(10) Wassermann reaction.

(11) Cobra venom.

(12) Anaphylaxis.

(13) Human hypersensitiveness (hay-fever, asthma, food  
idiosyncrasies).

Note—Each exercise is accompanied with a full discussion of all of  
the principles and theories concerned in the experiments.

## FOURTH YEAR ELECTIVES

The course is given from 9 to 12 A.M. during a period of four weeks, in April, as follows: Monday, Wednesday and Friday of the first week, and Monday to Friday, inclusive, in each of the other three weeks.

In the interest of the students the course is given to small classes (not exceeding 16 members) and in the event that 24 or more students apply the course will be repeated in May during corresponding time periods.

Since definite assignments cannot be made until the number of applicants is known students desiring to take this course are requested to apply to the Secretary's Office not later than February first. This will enable the department to consider preferences and make assignments which will not interfere with other electives the student may desire to take.

### II. Clinical Course in Human Hypersensitiveness.

(Asthma, hay-fever, urticaria, angio-neurotic edema, food and drug idiosyncrasies) by Dr. Robert A. Cooke at the New York Hospital.

- (1) Technique of the cutaneous test.
- (2) Interpretation of the local reaction.
- (3) History taking in allergic cases.
- (4) Diagnosis and treatment.

Note—This course is given twice weekly in the evening, only in conjunction with the Experimental Laboratory Course in General and Applied Immunology.

## N. NEUROLOGY.

### COURSES IN NEURO-PSYCHIATRY AND NEURO-ANATOMY. ONE-MONTH PERIODS.

- I. Neurology: clinics at Cornell Dispensary from 2 to 4 P.M. Also one and two hour periods, 3 (or 4) P.M. to 5 P.M. every afternoon in the Neurological Wards of Bellevue Hospital.
- II. Neurology: Bellevue Hospital, three days weekly, 11 A.M. to 12 M. Psychiatry, 10 A.M. to 12 M., Cornell Dispensary; Ward Work in Psychiatry, three forenoons, at Ward's Island; Dr. Kirby.
- III. Neurological Clinic. Neurological Institute. One day, 2-5 P.M. Dr. Stevenson.
- IV. Three days Neuro-Anatomy, 9-11 A.M. Dr. Stockard. This will be held for one week out of the four. Students will be provided with a specimen brain for dissection.  
Students who desire more Neurology and less Psychiatry, can make arrangements with the teachers, and the same may be done for those who desire to emphasize Psychiatry.  
A Student can take such parts of this course as he chooses, except that it is imperative that he takes at least the daily afternoon course at the College Clinic.

## Ps. PSYCHIATRY.

- I. Clinical psychiatry, with special reference to incipient and border line cases in relation to general practice. Drs. Brown, Cheney and MacCurdy. For groups of 6 students at the College Dispensary 3 forenoons a week, Monday, Wednesday and Thursday, for 1 month.
- II. Clinical psychiatry, examination of hospital cases with opportunity to study different types of psychoses. Drs. Kirby and Cheney. For 6 students, at the Psychiatric Institute, Ward's Island, 3 forenoons a week, Tuesday, Thursday and Friday, for 1 month.

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**Pd. PEDIATRICS.**

- I. Clinical Pediatrics. Drs. Schloss, Schroeder, Sammis and Lang.  
New York Nursery and Child's Hospital daily 9 A.M. to  
5 P.M. for periods of 1 month. Limited to 3 or 4 students.
- II. Clinical Pediatrics. Dr. Roper. New York Hospital daily, 2-5 P. M.  
for period of 1 month. Limited to 2 students.

**G. GYNECOLOGY.**

- I. Clinical Gynecology. Dr. Ward. Woman's Hospital. 1 month  
periods. Daily, as scheduled below. Work conducted in Wards,  
Operating Room, Laboratory and O. P. D. 4 selected students.

**A. FIRST TWO WEEKS.**

**Monday.**

- |                         |                        |
|-------------------------|------------------------|
| 9-12. Operative Clinic. | 2-4. Operative Clinic. |
| 12- 1. Study.           | 4-5. Pathological Lab. |

**Tuesday.**

- |                           |                        |
|---------------------------|------------------------|
| 9-11. Pathological Lab.,  | 2-5. Operative Clinic. |
| 11-12:20. Cystos. Clinic, |                        |

**Wednesday.**

- |                   |                        |
|-------------------|------------------------|
| 9-10. O. P. D.    | 2-4. O. P. D.          |
| 10-11. Follow-up. | 4-5. Pathological Lab. |
| 11- 1. Study.     |                        |

**Thursday.**

- |                           |                               |
|---------------------------|-------------------------------|
| 9-11. Pathological Lab.,  | 2-4. Operative Clinic.        |
| 11-12:30. Cystos. Clinic, | 4-5. Pathological Lab.        |
|                           | 5 Conference, Surgical Staff. |

**Friday.**

- |                         |                        |
|-------------------------|------------------------|
| 9-11. Operative Clinic. | 2-5. Operative Clinic. |
| 11-12. Conference.      |                        |
| 12- 1. Study.           |                        |

**Saturday.**

- |                |               |
|----------------|---------------|
| 9-11. O. P. D. | 2-3. O. P. D. |
| 11- 1. Study.  |               |

**B. SECOND TWO WEEKS.**

**Monday.**

- |             |                        |
|-------------|------------------------|
| 9-1. Wards. | 2-4. Operative Clinic. |
|             | 4-5. Pathological Lab. |

**Tuesday.**

- |             |                        |
|-------------|------------------------|
| 9-1. Wards. | 2-5. Operative Clinic. |
|-------------|------------------------|

**Wednesday.**

- |             |                        |
|-------------|------------------------|
| 9-1. Wards. | 2-4. O. P. D.          |
|             | 4-5. Pathological Lab. |

**Thursday.**

- |             |                               |
|-------------|-------------------------------|
| 9-1. Wards. | 2-4. Operative Clinic.        |
|             | 4-5. Pathological Lab.        |
|             | 5 Conference, Surgical Staff. |

**Friday.**

- |                    |                        |
|--------------------|------------------------|
| 9-10. Wards.       | 2-5. Operative Clinic. |
| 10-11. Conference. |                        |
| 11- 1. Study.      |                        |

**Saturday.**

- |             |              |
|-------------|--------------|
| 9-1. Wards. | 2-3 O. P. D. |
|-------------|--------------|

## FOURTH YEAR ELECTIVES

- II. Clinical Gynecology. Dr. McGrath, Cornell Clinic. 1 month periods. Daily, 1-4 P. M. 3 students.

### D. DERMATOLOGY.

- I. Clinical Dermatology and Salvarsan Administration. Drs. Schwartz, Levin and Gilmour. 1 month periods. Daily, 1-4 P. M. 6 students.

### L. LARYNGOLOGY.

- I. Clinical Courses in Laryngology and Rhinology. Drs. Montgomery and Howard. 1 month periods. Mondays and Wednesdays or Tuesdays and Fridays, 1-4 P. M. College Dispensary. 2 students.

### Op. OPHTHALMOLOGY.

- I. Operative Ophthalmology. Dr. Reese. N. Y. Eye and Ear Infirmary. 1 month periods. Mondays, 2-6 P.M. 20 students.
- II. Ophthalmoscopy. Dr. Reese. N. Y. Eye and Ear Infirmary. Wednesdays and Fridays, 2-4 P.M. 1 month periods. 6 students.
- III. Ophthalmoscopy and Refraction. Dr. Samuels. N. Y. Eye and Ear Infirmary. 1 month periods. Mondays and Wednesdays, 2-4 P.M. 6 students.
- IV. Ophthalmoscopy and Refraction. Dr. Vandegrift. Cornell Dispensary. 1 month periods. Mondays, Wednesdays, and Fridays. 2-4 P.M. 6 students.
- V. Operative Ophthalmology. Dr. Samuels. N. Y. Eye and Ear Infirmary. 1 month periods. Fridays, 2-4 P.M. 20 students.
- VI. Ophthalmoscopy and Refraction. Dr. Drake. Cornell Dispensary. 1 month periods. Tuesday, Thursday and Saturday. 2-4 P.M.
- VII. Ophthalmoscopy. Dr. Kelly. St. Vincent's Hospital. 1 month periods. Tuesday, 2-4 P.M. 6 students.
- VIII. Operative Ophthalmology. Dr. Kelly. N. Y. Eye and Ear Infirmary. 1 month periods. Mondays, 2-6 P.M. 20 students.
- IX. Clinical Ophthalmology. Dr. Samuels, Cornell Clinic. Tuesdays and Thursdays, 1-4 P. M. 6 students.

### Ot. OTOTOLOGY.

- I. Otology. Dr. Whiting. N. Y. Eye and Ear Infirmary. 1 month periods. Mondays, Wednesdays and Fridays, 2-3 P.M. 5 students.
- II. Otology. Dr. McAuliffe. 1 month periods. Tuesdays and Fridays, 1-4 P. M. 3 students.

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Or. ORTHOPEDICS.

- I. The Orthopedic Department of the Hospital for Ruptured and Crippled on Tuesdays, Thursdays and Saturdays, from 1-3, by Doctors Wallace, Cilley and Stephens. 10-12 students.
- II. The Hospital for Industrial Surgery, on Mondays, Wednesdays and Fridays, from 2-4, by Drs. Wallace and Healey. Specializing in post-operative treatment of industrial injuries. 10-12 students.
- III. The Cornell Clinic. Mondays, Wednesdays and Fridays, 1-4 P. M. 2 students for 1 month periods. Dr. Cilley.

H. HYGIENE.

- I. Laboratory Methods and Procedures. Dr. Torrey. Loomis Laboratory. Daily, 1 to 5 P.M., for 2 months. 2 students.

U. UROLOGY.

- I. Minor Urology. Drs. Valentine and Rohde. Cornell Dispensary. 1 month periods. Daily, 1-4 P. M. 8 students.
- II. Major Urology. Drs. Keyes and Jeck. Bellevue Hospital, Ward K4, 2 to 5 P.M., daily. Diagnosis and Treatment of Surgical Urological conditions. 1 month.
- III. Minor Urology and Elementary Cystoscopy. Drs. Valentine and Rohde as in Course I. 2 months, April and May. Daily, 2 to 4 P.M. 4 students.
- IV. Diagnosis and Treatment of Neoplasms of the Urinary and Male Genital Tracts. Memorial Hospital. Subject to special arrangement with instructor.

*NOTE—In addition to the above, students will often be able to arrange individual work on application to the heads of Departments.*

*NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.*



# SCHEDULE OF COURSES\*

**FIRST YEAR—SESSION OF 1921-1922—FIRST TERM**

September 27th to December 17th.

| Hour   | Monday                         | Tuesday    | Wednesday                      | Thursday      | Friday                         | Saturday |
|--|--------------------------------|------------|--------------------------------|---------------|--------------------------------|----------|
| 9  | A N A T O M Y                  |            |                                |               |                                |          |
| 10   |                                |            |                                |               |                                |          |
| 11   |                                |            |                                |               |                                |          |
| 1  | Histology<br>and<br>Embryology | Chem. L.   | Histology<br>and<br>Embryology | Chem. L.      | Histology<br>and<br>Embryology |          |
| 2  |                                | Morphology |                                | Chem.<br>Lab. |                                |          |
| 3  |                                |            |                                |               |                                |          |
| 4  |                                |            |                                |               |                                |          |
| 4:30   |                                |            |                                |               |                                |          |
| 5  |                                |            |                                |               |                                |          |
| Additional ELECTIVE courses may be offered in Department of Anatomy Saturday P. M. |                                |            |                                |               |                                |          |

## FIRST YEAR—SESSION OF 1921-1922—SECOND TERM

January 3rd to March 11th.

| Hour  | Monday                   | Tuesday    | Wednesday | Thursday   | Friday                   | Saturday                             |
|---|--------------------------|------------|-----------|------------|--------------------------|--------------------------------------|
| 9   | Histology and Embryology |            |           | Chem. Rec. | Histology and Embryology | Histological Technique and Diagnosis |
| 10  |                          |            |           | Anatomy    |                          |                                      |
| 11  |                          |            |           |            |                          |                                      |
| 1   | Anatomy                  | Chem. L.   | Anatomy   | Chem. L.   | Anatomy                  |                                      |
| 2   |                          |            |           |            |                          |                                      |
| 3   |                          | Chem. Lab. |           |            |                          |                                      |
| 4   |                          |            |           |            |                          |                                      |
| 4:30  |                          |            |           |            |                          |                                      |
| Additional ELECTIVE courses may be offered in Department of Anatomy or Chemistry, 4-6 P. M. and Thursday and Saturday 1-6 P. M. |                          |            |           |            |                          |                                      |

## FIRST YEAR—SESSION 1921-1922—THIRD TERM

March 13th to May 27th.

| Hour | Monday          | Tuesday       | Wednesday       | Thursday      | Friday          | Saturday      |
|------|-----------------|---------------|-----------------|---------------|-----------------|---------------|
| 9    | Chem. L.        | Physiol. L.   | Chem. L.        | Physiol. L.   | Chem. L.        | Physiol. L.   |
| 10   | Chem. Lab.      | Physiol. Lab. | Chem. Lab.      | Physiol. Lab. | Chem. Lab.      | Physiol. Lab. |
| 11   |                 |               |                 |               |                 |               |
| 12   |                 |               |                 |               |                 |               |
| 2    | Neuro-Histology | Physiol. Rec. | Neuro-Histology | Physiol. Rec. | Neuro-Histology |               |
| 3    |                 |               |                 | Chem. Rec.    |                 |               |
| 4    | Chem. Rec.      |               |                 |               |                 |               |

Abbreviations.—L., lectures; Lab., laboratory; Rec., recitations; Sec., section (the class being arranged to two or more divisions for certain exercises); Ber., Berwind Maternity Clinic; B. H., Bellevue Hospital (Second Division); B. H. 4, Bellevue Hospital (Fourth Division); C. D., College Dispensary; Man. Mat., Manhattan Maternity Hospital; N. C., New York Nursery and Child's Hospital; N. Y., New York Hospital; O. P. D., Bellevue Hospital, Out Patient Department; R & C., Hospital for the Ruptured and Crippled; R. H., Reconstruction Hospital; St. L., St. Luke's Hospital; St. M., St. Mary's Hospital; W. I., Ward's Island, Manhattan State Hospital; Wom. Hosp., Woman's Hospital.

*NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.*

# SECOND YEAR—SESSION OF 1921-1922—FIRST TERM

September 27th to December 17th.

| Hour | Monday             | Tuesday              | Wednesday         | Thursday           | Friday               | Saturday          |
|------|--------------------|----------------------|-------------------|--------------------|----------------------|-------------------|
| 9    | PHYSIOLOGY LECTURE |                      |                   |                    |                      |                   |
| 10   | Physiol.*<br>Lab.  | Anatomy              | Physiol.*<br>Lab. | Anatomy            | Physiol.*<br>Lab.    | Anatomy           |
| 11   |                    |                      |                   |                    |                      |                   |
| 12   |                    |                      |                   |                    |                      |                   |
| 2    | Physiol. R.        | Physiol.<br>Elective | Physiol. R.       | Physiol-<br>ogy R. | Physiol.<br>Seminary |                   |
| 3    | Elective††         | Phar-<br>macy        | Elective†         | Phar-<br>macy      | Pharm-<br>acology    | Pharm-<br>acology |
| 4    |                    |                      |                   |                    |                      |                   |

\*Ithaca students elect either Anatomy or Physiology until course in Nutrition begins.

†The Student will elect Anatomy, Physiology or Chemistry.

††Lectures on Physiology of Reproduction, 3 to 4 P.M.

NOTE.—Vertical divisions in daily columns indicate that such courses run a half term only. Courses change Nov. 7th, 9 A.M.

# SECOND YEAR—SESSION OF 1921-1922—SECOND TERM

January 3rd to March 11th.

| Hour | Monday       | Tuesday                            | Wednesday            | Thursday                           | Friday             | Saturday                    |
|------|--------------|------------------------------------|----------------------|------------------------------------|--------------------|-----------------------------|
| 9    | Surg. L.     | Med. R. Sec. B<br>Surg. R. Sec. A. | Pathology            | Med. R. Sec. A<br>Surg. R. Sec. B. | Pathology          | Surg.<br>Clinic<br>B. H.    |
| 10   | Pathology    | Pharmacology                       |                      | Pharmacology                       |                    | Medicine<br>Clinic<br>B. H. |
| 11   |              |                                    | Patholog.<br>Anatomy |                                    | Patholog.<br>Anat. |                             |
| 12   |              |                                    |                      |                                    |                    |                             |
|      |              |                                    |                      |                                    |                    | Pharmacology<br>L.          |
| 3    | BACTERIOLOGY |                                    |                      |                                    |                    |                             |
| 4    |              |                                    |                      |                                    |                    |                             |

# SECOND YEAR—SESSION OF 1921-1922—THIRD TERM

March 13th to May 27th.

| Hour | Monday                 | Tuesday                    | Wednesday                  | Thursday           | Friday                        | Saturday                       |
|------|------------------------|----------------------------|----------------------------|--------------------|-------------------------------|--------------------------------|
| 9    | Surg. L.               | Sections                   | Surg. L.                   | Sections           | Pathology                     | Sections                       |
| 10   | Pathology              | Hygiene                    | Pathology                  | Hygiene            |                               | Patholog.<br>Anatomy           |
| 11   |                        |                            |                            |                    |                               |                                |
| 12   |                        |                            |                            |                    |                               |                                |
| 1    |                        |                            |                            |                    |                               |                                |
| 2    | Obstetrics R.<br>A & B | Immunology<br>L.           | Gynecology<br>R.           | Immunology<br>L.   | Hygiene<br>Field<br>Excursion | Dermatology<br>Clinic<br>C. D. |
| 3    | Med. Clinic,<br>B. H.  | Pharmacol. L.              | Neurology<br>Clinic        | Gynecology<br>L.   |                               |                                |
| 4    |                        | Obstetrics<br>Clinic or L. | Med. R.<br>Sec. A. & B.    | Pharmacology<br>L. |                               |                                |
| 5    |                        |                            | Physical *<br>Diagnosis L. |                    |                               |                                |

\*First four weeks only.

For schedule of Sections see pages 77 and 78.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.

### THIRD YEAR—SESSION OF 1921-1922—FIRST TERM

September 27th to December 17th

| Hour | Monday                                      | Tuesday                                   | Wednesday                     | Thursday                            | Friday                              | Saturday                            |
|------|---|---|-------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|
| 9    | Pathology                                   |   |                               | Patholog.<br>Anatomy                | Pathology                           | Med. L.<br>Prof. Conner             |
| 10   |   |   |                               |                                     |                                     | Surgery<br>Clinic<br>C. D.          |
| 11   | Medicine<br>Clinic<br>B. H.<br>Prof. Conner | Clinical Pathology                        |                               |                                     |                                     |                                     |
| 12   |   |   |                               |                                     |                                     |                                     |
| 2    | Sections<br>(See Schedule No. 2)            |   | Urology L.<br>Prof. Keyes     | Laryngology<br>Prof. Smith          | Sections<br>(See Schedule<br>No. 2) | Sections<br>(See Schedule<br>No. 3) |
| 3    | Sections<br>(See Schedule<br>No. 3)         | Surgery<br>Clinic, B.H.<br>Prof. Hartwell | Orthoped. L.<br>Prof. Wallace | Sections<br>(See Schedule<br>No. 3) | Neurology<br>Clinic<br>Prof. Dana   |                                     |
| 4    |   | Sections<br>(See Schedule No. 3)          |                               |                                     | Sections<br>(See Schedule<br>No. 3) |                                     |
| 5    | Therap. L.<br>Prof.<br>Goodridge            |   |                               |                                     |                                     | Otology*<br>Prof. Whiting           |

\*First eight weeks only.

### THIRD YEAR—SESSION OF 1921-1922—SECOND TERM

January 3rd to March 11th

| Hour | Monday                                  | Tuesday                  | Wednesday | Thursday                              | Friday   | Saturday                               |
|------|---|--------------------------|-----------|---------------------------------------|----------|--|
| 9    | Sections                                | Surgery<br>Prof. Taylor  | Sections  | Surg. Clinic<br>N. Y.<br>Prof. Gibson | Sections | Urology<br>Clinic B. H.<br>Prof. Keyes |
| 10   |   | Med.<br>Psychology<br>L. |           |                                       |          |  |
| 11   |   |                          |           |                                       |          |  |
| 12   | S E C T I O N S<br>(See Schedule No. 4) |                          |           |                                       |          |  |

|   |   |                                      |                         |  |                                     |  |
|---|---|--------------------------------------|-------------------------|--|-------------------------------------|--|
| 2 | Sections<br>(See Schedule No. 2)        |                                      |                         | Dermatology<br>Clinic<br>Prof. Schwartz    | Sections<br>(See Schedule<br>No. 2) | Pediatrics<br>Clinic, N. C.<br>Dr. Schroeder |
| 3 | Applied<br>Anatomy                      | Surgery<br>Clinic<br>Prof. Hartwell  | Applied<br>Anatomy      | Neurology<br>Clinic<br>B. H.<br>Prof. Dana | Applied<br>Anatomy                  |  |
| 4 |   | Obstetrics<br>Clinic<br>Prof. Bailey |                         | Obstetrics L.<br>Prof. Bailey              |                                     |  |
| 5 | Med. Jurisprud.<br>L.<br>Prof. Schultze |                                      | Med. L.<br>Prof. Conner | Therap. L.<br>Prof.<br>Goodridge           | Therap.<br>Rec.                     |  |

For schedule of Sections see pages 77 and 78.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.

# THIRD YEAR—SESSION OF 1921-1922—THIRD TERM

March 13th to May 27th.

| Hour | Monday   | Tuesday                                 | Wednesday | Thursday                            | Friday   | Saturday             |
|------|----------|---|-----------|-------------------------------------|----------|----------------------|
| 9    | Sections | Surg. L.<br>Prof. Gibson                | Sections  | Surg. L.<br>Prof. Gibson            | Sections | Med. Clinic<br>B. H. |
| 10   |          | Psychiatry<br>L.<br>Prof. Kirby         |           | Med. Clinic<br>Prof. Conner<br>C.D. |          |                      |
| 11   |          | S E C T I O N S<br>(See Schedule No. 4) |           |                                     |          |                      |
| 12   |          |   |           |                                     |          |                      |

|   |                                   |   |                     |                                  |                                       |                                       |  |
|---|-----------------------------------|---|---------------------|----------------------------------|---------------------------------------|---------------------------------------|--|
| 2 | Roentgenology<br>L.<br>Prof. Cole | Ophthal. Clinic<br>or L.<br>Prof. Reese | Psychiatry<br>W. I. | Operative<br>Surgery             | Roentgenology<br>L.<br>Prof. Cole     | Pediatrics<br>Clinic<br>Dr. Schroeder |  |
| 3 | Operative<br>Surgery              | Neurology<br>Clinic<br>Prof. Dana       |                     |                                  | Surg. Clinic†<br>Prof. Lyle<br>St. L. |                                       |  |
| 4 |                                   | Surg. L.                                |                     |                                  |                                       |                                       |  |
| 5 | Med. Jurisprud.<br>Prof. Schultze | Therap. Rec.                            |                     | Therap. L.<br>Prof.<br>Goodridge |                                       |                                       |  |

†Elective for fourth year students.

For schedule of Sections see pages 77 and 78.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.

# FOURTH YEAR—SESSION OF 1921-1922

September 27th, 1921 to March 25th, 1922.

|                               | Medicine |       | Surgery |       | Neurology                        | Pediatrics                           | Orthopedics                                | Gynecology†                               | Gynecology   | Urology†  | Elective†                     |
|-------------------------------|----------|-------|---------|-------|----------------------------------|--------------------------------------|--|---|--|---|-------------------------------|
|                               | N. Y.    | B. H. | N. Y.   | B. H. | B. H.<br>Tu, Th, S.<br>2-5 P. M. | N. C.—M. F.<br>N. Y.—W.<br>2-5 P. M. | R. & C.—W. F.<br>R. H.—M.<br>9 A. M.—12 N. | Woman's<br>Hosp.<br>M. W. F.<br>2-5 P. M. | Wom. Hosp.<br>Tu, Th, S.<br>9 A. M.—5 P. M.<br>M. W. F.<br>9 A. M.—1 P. M.<br>2nd 2 wks. only* | Tu, Th, S.<br>9 A. M.—5 P. M.<br>M. W. F.<br>9 A. M.—1 P. M.<br>First 2 weeks only* | Tu, Th, S.<br>9 A. M.—1 P. M. |
| September 27 to<br>October 22 | A        | D     | F       | C     | E                                | E                                    | E  | B   | B*   | B*  | E                             |
| October 24 to<br>November 19  | B        | E     | D       | A     | F                                | F                                    | F  | C   | C*   | C*  | F                             |
| November 21 to<br>December 17 | C        | F     | E       | B     | D                                | D                                    | D  | A   | A*   | A*  | D                             |
| January 3 to 28               | D        | A     | C       | F     | B                                | B                                    | B  | E   | E*   | E*  | B                             |
| January 30 to<br>February 25  | E        | B     | A       | D     | C                                | C                                    | C  | F   | F*   | F*  | C                             |
| February 27 to<br>March 25    | F        | C     | B       | E     | A                                | A                                    | A  | D   | D*   | D*  | A                             |

\*Each section takes Urology first two weeks of the period, Gynecology the second two weeks. Women take Gynecology the entire four weeks.

†Students desiring electives will first consult the head of department and then register at the Secretary's office four weeks in advance for Elective work on Tuesday, Thursday and Saturday A.M.

‡Practical Obstetrics, full time, for two week periods, at the Berwind Maternity Clinic, will be offered in place of Urology and the part time section in Gynecology for the session of 1922 to 1923.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.



# FOURTH YEAR—SESSION OF 1921-1922

March 27th to May 27th, 1922.

| Hour | Monday | Tuesday | Wednesday | Thursday | Friday | Saturday |
|------|--------|---------|-----------|----------|--------|----------|
| 9    |        |         |           |          |        |          |
| 10   |        |         |           |          |        |          |
| 11   |        |         |           |          |        |          |
| 12   |        |         |           |          |        |          |
| 1    |        |         |           |          |        |          |
| 2    |        |         |           |          |        |          |
| 3    |        |         |           |          |        |          |
| 4    |        |         |           |          |        |          |
| 5    |        |         |           |          |        |          |

## ELECTIVES

Students will register their courses at the College office on or before Feb. 1st

Announcement of courses on page 64.

(No course can be dropped without written permission from heads of all departments concerned, and the Dean.)

Students will take work in Pathological Anatomy (Autopsies) as posted on Bulletin Board.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice.

# DETAIL SCHEDULE OF SECOND, THIRD AND FOURTH YEAR SECTION CLASSES

*NOTE—Section periods in each instance include both dates. Sections are designated by letters; a figure following indicates a half section.*

## SECOND YEAR SECTIONS

| Subjects  | Mar. 13th—<br>31st | April 1st—<br>21st | April 22nd<br>May 10th | May 11th—<br>27th |
|---|--------------------|--------------------|------------------------|-------------------|
| Surgery, B. H.—Tu., S.<br>St. M.—Th., 9.00—10.30 A.M. | A <sub>1</sub>     | A <sub>2</sub>     | B <sub>1</sub>         | B <sub>2</sub>    |
| Medicine, B.H., 4th Div.<br>Tu., Th., S., 9—11 A.M.   | B <sub>1</sub>     | B <sub>2</sub>     | A <sub>1</sub>         | A <sub>2</sub>    |
| Physical Diagnosis, C.D.<br>Tu., Th., S., 9—11 A.M.   | B <sub>2</sub>     | A <sub>1</sub>     | A <sub>2</sub>         | B <sub>1</sub>    |

## THIRD YEAR SECTIONS—Schedule No. 2

| Subjects   | Sept. 27th—<br>Oct. 22nd |                | Oct. 24th—<br>Nov. 19th |                | Nov. 21st—<br>Dec. 17th |                | Jan. 3rd—<br>24th |                | Jan. 25th—<br>Feb. 16th |                | Feb. 17th—<br>Mar. 11th |                |
|--|--------------------------|----------------|-------------------------|----------------|-------------------------|----------------|-------------------|----------------|-------------------------|----------------|-------------------------|----------------|
| Ophthalmology<br>M., Tu., F.<br>2—3 P.M.<br>C.D. | A                        |                | F                       |                | E                       |                | D                 |                | C                       |                | B                       |                |
| Otology<br>M., Tu., F.<br>2—3 P.M.<br>C.D.       | B                        |                | A                       |                | F                       |                | E                 |                | D                       |                | C                       |                |
| Laryngology<br>M., Tu., F.<br>2—3 P.M.<br>C.D.   | C                        |                | B                       |                | A                       |                | F                 |                | E                       |                | D                       |                |
| Dermatology<br>M., Tu., F.<br>2—3 P.M.<br>C.D.   | D                        |                | C                       |                | B                       |                | A                 |                | F                       |                | E                       |                |
| Neurology<br>M.<br>2—3 P.M.<br>C.D.              | E                        |                | D                       |                | C                       |                | B                 |                | A                       |                | F                       |                |
| Gynæcology*<br>C.D.<br>Tu., F.<br>2—3 P.M.       | E <sub>1</sub>           | E <sub>2</sub> | D <sub>1</sub>          | D <sub>2</sub> | C <sub>1</sub>          | C <sub>2</sub> | B <sub>1</sub>    | B <sub>2</sub> | A <sub>1</sub>          | A <sub>2</sub> | F <sub>1</sub>          | F <sub>2</sub> |
| Urology<br>M., Tu., F.<br>2—3 P.M.<br>C.D.       | F                        |                | E                       |                | D                       |                | C                 |                | B                       |                | A                       |                |

Half sections change on Oct. 10, Nov. 7, Dec. 5, Jan. 13, Feb. 4, Mar. 1 at 9 A.M.

*For abbreviations see page 71.*

THIRD YEAR SECTIONS—Schedule No. 3

| Subjects  | Sept. 27th—<br>Oct. 8th | Oct. 10th—<br>22nd | Oct. 24th—<br>Nov. 5th | Nov. 7th—<br>19th | Nov. 21st—<br>Dec. 3rd | Dec. 5th—<br>17th |
|---|-------------------------|--------------------|------------------------|-------------------|------------------------|-------------------|
| <b>Orthopedics</b><br>C.D., M., Th., 3—4 P.M.<br>R.&C., S., 2—3 P.M.<br>C.D., M., Th.,<br>4—5 P.M. (Rec.) | F                       | E                  | D                      | C                 | B                      | A                 |
| <b>Therapeutics</b><br>B. H.<br>M., Th., 3—5 P.M.   | C<br>E                  | D<br>F             | A<br>C                 | B<br>D            | A<br>E                 | B<br>F            |
| <b>Obstetrics, College</b><br>M., Th., 3—4 P.M.<br>S., 2—3 P.M.   | D                       | C                  | B                      | A                 | F                      | E                 |
| <b>Obstetrics, College</b><br>Tu., W., F., 5—6 P.M.   | C                       | D                  | A                      | B                 | E                      | F                 |
| <b>Obstetrics Rec.</b><br>Tu., W., F., 4—5 P.M.   | C<br>D                  | C<br>D             | A<br>B                 | A<br>B            | F<br>F                 | F<br>F            |
| <b>Gynecology</b><br>S., C.D., 2—3 P.M.   | E <sub>1</sub>          | F <sub>1</sub>     | C <sub>1</sub>         | D <sub>1</sub>    | A <sub>1</sub>         | B <sub>1</sub>    |
| <b>Gynecology</b><br>S., C.D., 5—6 P.M.<br>Tu., F.  | E <sub>2</sub>          | F <sub>2</sub>     | C <sub>2</sub>         | D <sub>2</sub>    | A <sub>2</sub>         | B <sub>2</sub>    |
| <b>Ophthalmology, C.D.</b><br>T., W., F., 4—5 P.M.  | A<br>B                  | A<br>B             | E<br>F                 | E<br>F            | D<br>C                 | C<br>D            |
| <b>Pediatrics</b><br>Rec.<br>Tu., F., 4—5 P.M.  | E<br>F                  | E<br>F             | C<br>D                 | C<br>D            | A<br>B                 | A<br>B            |
| <b>Pediatrics</b><br>Rec.<br>M., Th., 4—5 P.M.  | A<br>B                  | A<br>B             | F<br>F                 | E<br>F            | C<br>D                 | C<br>D            |

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.

# THIRD YEAR SECTIONS—Schedule No. 4

| Subjects   | Jan. 3rd—<br>24th               | Jan. 25th—<br>Feb. 16th         | Feb. 17th—<br>Mar. 11th         | Mar. 13th—<br>April 6th         | Apr. 7th—<br>May 4th            | May 6th—<br>27th                |
|--|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|---------------------------------|
| Medicine Rec.<br>Tu., Th., S.<br>11 A.M.—12 N.                 | A<br>B<br>E                     | A<br>B<br>E                     | A<br>B<br>E                     | C<br>D<br>F                     | C<br>D<br>F                     | C<br>D<br>F                     |
| Medicine Rec.<br>Tu., Th., S.<br>11 A.M.—12 N.                 | C<br>D<br>F                     | C<br>D<br>F                     | C<br>D<br>F                     | A<br>B<br>E                     | A<br>B<br>E                     | A<br>B<br>E                     |
| Surgery Rec.<br>Tu., Th., S.<br>12 N.—1 P.M.                   | A<br>B<br>E                     | A<br>B<br>E                     | A<br>B<br>E                     | C<br>D<br>F                     | C<br>D<br>F                     | C<br>D<br>F                     |
| Surgery Rec.<br>Tu., Th., S.<br>12 M.—1 P.M.                   | C<br>D<br>F                     | C<br>D<br>F                     | C<br>D<br>F                     | A<br>B<br>E                     | A<br>B<br>E                     | A<br>B<br>E                     |
| Surgery, St. L.<br>M., W., F.<br>9 A.M.—1 P.M.                 | A                               | B                               | E                               | C                               | F                               | D                               |
| Pediatrics, Willard-Parker<br>M., W., F.<br>11:30 A.M.—1 P.M.  | B                               | E                               | C                               | F                               | D                               | A                               |
| Pediatrics, Rec.<br>M., F.<br>9—10 A.M.                        | D<br>F                          |                                 |                                 | A<br>B                          | C<br>E                          |                                 |
| Pediatrics Section,<br>N. C. Hosp., M., W., F.<br>9:30—11 A.M. | C                               | A                               | D                               | E                               | B                               | F                               |
| Surg. Pathology, B.H.<br>M., W., F.<br>10 A.M.—1 P.M.          | D                               | F                               | B                               | A                               | C                               | E                               |
| Obstetrics B.H.<br>M., W., F.<br>9—11 A.M.                     | B                               | E                               | C                               | F                               | D                               | A                               |
| Medicine C.D.—M., F.<br>N., Y.—W.<br>11 A.M.—1 P.M.            | F                               | D                               | A                               | B                               | E                               | C                               |
| Gynecology, Wom. Hosp.<br>O.P.D., M., W., F.<br>9—10:30 A.M.*  | F <sub>1</sub>   E <sub>2</sub> | C <sub>1</sub>   C <sub>2</sub> | F <sub>1</sub>   F <sub>2</sub> | D <sub>1</sub>   D <sub>2</sub> | A <sub>1</sub>   A <sub>2</sub> | B <sub>1</sub>   B <sub>2</sub> |

\*Half sections change Jan. 13, Feb. 4, Mar. 1, Mar. 24, Apr. 21, and May 17 at 9 A.M.

NOTE—The Faculty expressly reserves the right to make alterations in the curriculum whenever advisable and without notice. For abbreviations see page 71.

## EXAMINATIONS AND ADVANCEMENT IN COURSE.

**I. Advancement.**—Students are advanced in course from one year to the next upon recommendation by heads of departments after examination in the work of that year, but examinations in major or minor subjects may, at the discretion of the Head of the Department, include all the work previously covered in the year or years preceding the examinations in question. There is, however, no unnecessary repetition of subjects taught from year to year.

**II. Examinations.**—Examinations for advancement in course, graduation and admission to advanced standing are held at the close of the year, except that in each course extending through a part of the year only, the examination may be held at the close of the course.

A grade of 75 per cent. is required to pass; a student failing to pass is either conditioned or dropped (see subjects of examinations, etc., pages 78-80).

A conditioned student may be re-examined in September.

A student who fails to pass all of his conditions in September shall not be allowed to register in the succeeding year of the curriculum, but shall be required to repeat the year.

A dropped student shall not be re-examined nor shall he be re-admitted to this College.

**III. Record of Grades.**—At the completion of a final examination at the end of a course the grades of each student are to be promptly compiled and submitted by the examiner to the College office for record by the Secretary, and grades once recorded are not subject to change except in accordance with the rules governing re-examination (See II.).

**IV. Final Examinations.**—Annual examinations are held at the end of a course, or coincident group of courses, in the hours allotted to said courses, or during the last week of the session, at the discretion of the head of the department, who will give notice of the date of examination through the office of the Secretary. All such final examinations are conducted under the direction of the head of the Department.

**V. Major and Minor Courses.**—Major courses are those fundamental courses in which a student completes his work in a given department or subject. Minor courses comprise the shorter laboratory and recitation courses.

### Subjects of Examination for Completion of the First Year.

Major Subjects—\*Anatomy.

Physiology.

\*Organic Chemistry (including laboratory work).

\*Histology and Embryology.

Physiological Chemistry.



## EXAMINATIONS AND ADVANCEMENT IN COURSE.

Minor Subjects—\*Neuro-Anatomy.

Conditions allowed: 1 Major and 1 Minor.

*NOTE—All conditions must be successfully passed before entrance into the next succeeding year will be allowed.*

### Subjects of Examination for Completion of the Second Year.

Major Subjects—\*Physiology.

Pharmacology and Materia Medica.

Pathology.

\*Bacteriology.

Minor Subjects—Medicine.

Surgery.

Obstetrics.

\*Anatomy.

\*Nutrition.

Hygiene.

Conditions allowed: 1 Major and 1 Minor; or 2 Minor subjects.

(See note above.)

### Subjects of Examinations for Completion of the Third Year.

Major Subjects—\*Pathology.

\*Obstetrics.

Minor Subjects—Medicine.

Surgery.

Therapeutics.

\*Clinical Pathology.

Pediatrics.

Neurology.

\*Applied Anatomy.

\*Pathological Anatomy.

\*Urology.

\*Otology.

Ophthalmology.

\*Laryngology and Rhinology.

\*Dermatology.

Psychiatry.

Conditions allowed: 1 Major and 1 Minor; or 2 Minors.

### Subjects of Examination for Completion of the Fourth Year and Graduation.

Major Subjects—Medicine.

Surgery.

Pediatrics.

Minor Subjects—Neurology.

Orthopedic Surgery.

Gynecology.

Conditions allowed:—

(See note above.)

\*In the subjects thus marked the examination is given at the end of the course, under the direction of the head of the department. In other subjects the final examination is at the end of the year.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

If any student fails to pass in not more than one major, or in two minor subjects, a re-examination in those subjects may be allowed, and if the candidate is then successful the degree may be conferred.

If the candidate fails to pass in any subject at this second examination, the work of the fourth year must be repeated.

The examinations in the major subjects are allowed three hours and in the minor subjects two hours each.

### REQUIREMENTS FOR GRADUATION.

1. Candidates for the degree of doctor of medicine must have studied medicine for four full years in an accredited medical college, and the fourth year at least must have been spent in the Cornell University Medical College.

2. Candidates must present satisfactory evidence of good moral character and of being not less than twenty-one years of age.

3. Candidates must file with the Secretary of the Faculty satisfactory evidence of having complied with the entrance requirements (see page 24), together with the requisite legal medical student certificate.

NOTE—This certificate is issued by the Department of Education of the State of New York on presentation of a diploma from a recognized College or University or properly attested certificate showing that such a diploma has been granted, together with a fee of twenty-five cents. If the student so requests, the Secretary of the Faculty may forward such diploma or certificate to the Department of Education of the State of New York with a request for the legal student certificate.

4. Candidates must have dissected at least one lateral half of the cadaver. They must, further, have taken the regular course of two weeks in practical obstetrics, and a certificate\* covering this course must be filed at the Secretary's office before registration for the final examinations, which begin about the last week of May.

5. In addition to the yearly examinations above specified for advancement in course, candidates must pass during the fourth year examinations in medicine, surgery, pediatrics, and the minor subjects which are specified above.

6. Candidates rejected at the final examination will not be re-examined until after having repeated the fourth year of study.

Before being readmitted to the fourth year the candidate may be required to pass a satisfactory examination in anatomy, physiology, chemistry, and the major subjects of the preceding years.

7. The degree will not be conferred upon any candidate who absents himself from the public Commencement without the special permission of the Faculty.

8. The Faculty reserves the right to terminate the connection of any student with the institution *at any time* on the ground of what they may deem moral or mental unfitness for the profession, or improper conduct while connected with the College.

\* This certificate must set forth the number of obstetrical cases personally attended by the student.

## EXAMINATIONS AND ADVANCEMENT IN COURSE.

### DIPLOMAS OF LICENTIATE OF THE ROYAL COLLEGE OF PHYSICIANS OF LONDON AND MEMBERSHIP OF THE ROYAL COLLEGE OF SURGEONS OF ENGLAND.

Graduates of the Cornell University Medical College are admitted to the final examinations for diploma of Licentiate of the Royal College of Physicians of London and Membership of the Royal College of Surgeons of England, upon presenting proper certificates that certain conditions applicable to the foreign universities and colleges, which are recognized by the examining board, have been complied with.

Further information may be obtained from the Secretary of the Board (Mr. F. G. Hallet) at the Examination Hall, Queen's Square, Bloomsbury, London, W. C.

#### Prizes.

##### I. For general efficiency.

In commemoration of John Metcalfe Polk, an Instructor in this College, who was graduated from the Medical Department of Cornell University on June 7, 1899, and died on March 29, 1904, an annual prize of \$500 will be presented at each Commencement to the members of the Graduating Class who have pursued the full course of study in Cornell University Medical College.

This prize will be awarded as follows:

|  |       |
|--|-------|
| To the student having the highest standing.....        | \$300 |
| To the student having the second highest standing..... | 125   |
| To the student having the third highest standing.....  | 75    |

##### II. For efficiency in Gynecology.

In memory of William M. Polk, M.D., LL.D., Dean and Professor of Gynecology in Cornell University Medical College from its establishment in 1898 until his death June 23, 1918, an annual prize, established by Mrs. Polk, of \$200, to the two members of the Senior Class in order of merit, for obtaining especial distinction in the Department of Gynecology.

This prize will be awarded as follows:

|  |       |
|--|-------|
| To the student attaining the highest distinction.....      | \$125 |
| To the student attaining the next highest distinction..... | 75    |

##### III. For efficiency in Otology.

Two prizes, the first of \$50, the second of \$25, are offered by Professor Whiting to the two students of the graduating class to be designated by him who make the best records in the practical and theoretical work in Otology.

**Hospital Appointments.**—Members of the graduating class of Cornell University Medical College are nominated for appointment to the staff of internes in the Cornell division of Bellevue and the New York and in the Memorial Hospitals in accordance with the following general plan:

1. The list of available positions having been posted, members of the graduating class make application for such services as they desire, naming not less than two choices, and agreeing to accept the position if offered.

2. A committee of the faculty determine the appointments from the list of candidates, basing their determination upon—

- a. The student's standing during his first three years in Medical College:
- b. The quality of his work in the hospital ward:
- c. Personality and general fitness for the position desired.

## CORNELL UNIVERSITY MEDICAL COLLEGE.

The nominations thus made are subject to confirmation by the faculty of the Medical College and by the hospital. The faculty expressly reserve the right to alter the method of appointment in any or all particulars, at any time, and without notice.

The students and graduates of the Cornell University Medical College are also expected to compete for positions on the resident staff of the other hospitals of the city.

Some of these hospitals are: The City, Harlem, Gouverneur, Roosevelt, Fordham, St. Luke's, St. Vincent's, St. Francis', Mount Sinai, Lenox Hill, Lebanon, Lincoln, New York Eye and Ear Infirmary, and the many hospitals in Brooklyn, Jersey City, Newark, Paterson, etc.

The requirements, the times of examination, and the period of service differ. The details can be learned by application, written or in person, to the superintendents or to the secretaries of the medical boards of the various hospitals.

A record of the hospital appointments received by the graduating class is shown in the list of Graduates at the end of the Announcement.

The **Alpha Omega Alpha**, an honorary medical society, has maintained a chapter in this College since 1910. The members are elected by the membership of the society on nomination from the College Office. Nominations include only those who have for three years made a scholarship average of not less than 85 per cent. Popularity and fitness for medical work are considered by the members in selecting from this list. Not more than one-sixth of each class is eligible for election. The present membership is as follows:

### CLASS OF 1921.

|                      |                        |
|----------------------|------------------------|
| Hyla Stowell Watters | William Malcolm Stobbs |
| Henry Bruner Sutton  | David Warshaw          |
| Leighton Payson Rand | Paul Truitt Willis     |

The **Vesalian Society** is a students' organization which arose from a series of Anatomical Journal Clubs started about 1910. The Anatomical Journal Club had been confined to the first year class and the Vesalian Society became the means of continuing the consideration of scientific literature by a group of interested students in the upper classes. The Society now maintains a Journal Club in each College class, with admittance to membership on the basis of effective scholarship. In addition to the class meetings there are meetings open to the public which are addressed by undergraduates and by invited guests. The purpose of the Society is to stimulate an active interest in the broader aspects of the medical sciences, to promote a fraternal spirit in and between the College classes, and to promote co-operation between undergraduates and alumni.



## COURSES FOR GRADUATES.

For some years special courses have been offered in several of the departments, and they have been, from time to time, pursued by graduates in medicine, teachers and advanced students and research workers in the medical sciences. For the benefit of such applicants these courses have been compiled, and are listed below under the several departments by which they are offered. For a list of the teaching staff the reader is referred to the detailed statement of the several departments contained in pages 30 to 63 of this announcement.

The courses offered below with the exceptions indicated are minor courses continuing six to eight weeks. Several departments are equipped to offer co-ordinated work extending over longer periods, and such courses can be arranged for the student by consultation with the head of the department.

In general it is recommended that students applying for admission to graduate courses so far as possible arrange to take consecutive work for a period of at least one College session. Such courses will be under the immediate supervision of an instructor from the department in which the greater portion of the student's work is performed.

*The faculty reserve the right to limit the number of applicants received and to alter or withdraw courses at any time without notice.*

### ADMISSION.

Graduates in Medicine, Arts or Science, from approved colleges, who desire to pursue courses not leading to a degree, are admitted to registration as graduate students, after approval by the head of the department. Such courses do not count in any way as a part of the four years' course required of candidates for the degree of doctor in medicine. All students or other workers pursuing courses indicated below are required to register at the office of the Secretary.

### FEES.

Graduate students are admitted to any of the courses of instruction offered on the payment of a registration fee of ten dollars, an administration fee of five dollars and the tuition fee assigned to the course (see below). Those who have been previously registered as students in the Cornell University Medical College are not required to pay the registration fee.

In the courses outlined below, those marked with an \* may be begun at any time during the session.

### ANATOMY.

1. **Embryology.**—September 26th to March 11th. Fee \$25. Details on page 30.

2.\* **Histological Technic.**—Laboratory at least three hours daily and conferences with instructors. Fee \$25.

3 and 4. **General Histology, Microscopical Anatomy.**—September 26th to March 11th. Details on page 31. Fee \$50.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

5.\* **Dissection.**—See Courses I-V, page 31. Fee \$25 per term (ten weeks); or for the entire dissection, \$50.

6.\* **Neuro-Anatomy.**—March 13th to May 27th. Details on page 31. Fee \$25.

7.\* **Anatomical Research.**—Subject to special arrangement with head of department.

### PHYSIOLOGY.

1. **Physiology.**—Begins with Term III in March and continues in Term I of the following session. Details on page 34. Fee \$50.

2.\* **Physiological Research.**—Subject to special arrangement with head of department.

### CHEMISTRY.

1.\* **Advanced Physical and Physiological Chemistry.**—Duration 10 weeks. Fee \$25.

2.\* **Chemical Pathology.**—Duration 10 weeks. Fee \$25.

3.\* **Detection and Estimation of Poisons.**—Duration 10 weeks. Fee \$25.

4.\* **Research Work in Physiological Chemistry, Chemical Pathology, or Toxicology.**

Note.—Courses in this department are subject to special arrangement with head of department. Special students in this department must present satisfactory evidence of preliminary training in inorganic chemistry with laboratory work as outlined on page 24.

### PHARMACOLOGY.

1.\* **Laboratory Pharmacology,** under supervision and including conferences with instructor. Fee \$25.

2.\* **Research Work in Pharmacology.**

### MEDICINE.

1. **Applied Immunology.** (See Bacteriology.)

2. **Advanced Course in Metabolism Methods.** (See page 40.)

### CLINICAL PATHOLOGY.

1. **Laboratory Diagnosis.**—Elementary and advanced instruction is offered in all the tests commonly performed in a clinical laboratory. The time the course is given and the fee are to be arranged with Professor Thro.

2. **Wassermann and gonococcus complement fixation.**

Professor Thro. Fee \$50.

### SURGERY.

1. **Clinical Clerkship.**—Bellevue Hospital Second Surgical Division. Graduates in Medicine may avail themselves of a course or courses as outlined under Clinical Clerkships on page 44. One month, full time. Fee \$100.

## COURSES FOR GRADUATES.

2.\* **Operative Surgery on the Cadaver.**—(Offered only to graduates in medicine.)

|           |                   |         |
|-----------|-------------------|---------|
| Course of | 5 operations..... | \$20.00 |
| " "       | 10 " .....        | 30.00   |
| " "       | 20 " .....        | 40.00   |
| " "       | 40 " .....        | 60.00   |
| " "       | 80 " .....        | 90.00   |
| " "       | 100 " .....       | 100.00  |

3. **Operative Surgery.**—Regular undergraduate course, in third term only begins with Term III in March. Fee \$25.

## PATHOLOGY.

1.\* **Pathological Anatomy and Autopsy Technics.**—First trimester.

2. **Neuro-pathology.**—Offered only in October to December

## BACTERIOLOGY.

1. **Applied Immunology.** Drs. Coca and Cooke. *Clinical work* at the New York Hospital with the collaboration of the Department of Medicine. *Laboratory Course* at the New York Hospital. 1 month periods, January and June. Four afternoons a week. Fee \$200. (For further details and synopsis address the *Secretary*.)

## NEUROLOGY.

1. **Neuro-anatomy.**—See Department of Anatomy. The student must present satisfactory evidence of an adequate knowledge of general histology. Fee \$25.

3.\* **Clinical Neurology.**—Includes study of ambulatory and ward cases, with medical and electrical therapeutics. Two hours daily for two months. Should be preceded by Courses 1 and 2 or their equivalent. Fee \$50.

4.\* **Psycho-therapeutics.**—Twice weekly for eight weeks. Should be preceded or taken in conjunction with Course 3. Fee \$25.

## DERMATOLOGY.

1.\* **Clinical Dermatology.**—Ambulatory cases. Thrice weekly for six weeks. 2-3 P.M. Fee \$25.

## LARYNGOLOGY AND RHINOLOGY.

1.\* **Clinical Laryngology.**—Course of 15 lessons on diagnosis and therapeutics, including operative treatment. Fee \$25.

OPHTHALMOLOGY.

- 1.\* **Ophthalmoscopy.** 20 hours. Fee \$25.
- 2.\* **External Diseases of the Eye.** 20 hours. Fee \$25.
- 3.\* **Diseases of the Eye Muscles.** 15 hours. Fee \$20.
- 4.\* **Refraction and Retinoscopy.** 20 hours. Fee \$25.
- 5.\* **Simulation of Amblyopia and Amaurosis.** 5 hours. Fee \$20.
- 6.\* **Clinical Ophthalmology.** Daily 2-3 P.M. Fee per month, \$25.
- 7.\* **Ophthalmic Operation on the Cadaver.** (This course is given in coöperation with the Department of Anatomy). 20 hours. Fee \$50.
- 8.\* **Pathological Histology of the Eye.**—(This course is given in coöperation with the Department of Pathology, and must be applied for in advance.) 20 hours. Fee \$25.
- 9.\* **Bacteriology of the Eye.**—(This course is given in coöperation with the Department of Pathology, and must be applied for in advance.) 15 hours. Fee \$20.

## THE GRADUATE SCHOOL.

### THE GRADUATE SCHOOL.

The scientific departments of the Medical College in New York City offer graduate instruction as an integral part of the Graduate School of Cornell University. Students who register in the Medical College for work leading to the degree of Doctor of Philosophy are in all cases subject to the rules and regulations of the Graduate School of Cornell University.

#### ADMISSION.

The Graduate School has exclusive control of all graduate work done in Cornell University. Graduates of the following colleges of the University, namely, the College of Arts and Sciences, the Medical College, the College of Architecture, the College of Civil Engineering, the Sibley College of Mechanical Engineering, and the New York State Colleges of Agriculture and Veterinary Medicine,—or of other institutions in which the requirements for the first degree are substantially equivalent,—are eligible for admission to the Graduate School. In other cases, studies pursued after graduation, and experience gained by professional work or otherwise are taken into consideration in deciding whether the candidate's preparation as a whole is such as to justify his admission to the Graduate School.

In order to avoid delays at the beginning of the academic year, those who desire to enter the Graduate Course *in the Medical Sciences* are advised to make application for admission, either in person or by letter, in the preceding spring or summer. Correspondence should be addressed to *the Secretary of the Medical Faculty*, 477 First Avenue, New York City.

Before admission it will be necessary to present evidence of the degree already received, *i. e.*, either the diploma or a statement from some official source. The simplest procedure will ordinarily be to submit an official statement from the Registrar or Dean that the degree has been conferred. A blank form of certificate will be furnished on request.

All credentials lodged with the Medical College are in duplicate, one copy being submitted to the Graduate School at Ithaca for the approval of the Dean.

#### STUDIES.

The purpose of the graduate courses is to provide the student with the method and discipline of original research, to the ultimate end that he may contribute to the advancement of knowledge. In furnishing this opportunity for independent study and investigation in the Medical College the Graduate School seeks to make the conditions such as will enable the student to devote himself wholly to his chosen field. Unhampered by the restrictions that necessarily obtain in undergraduate work, he will come into freedom of association with older scholars, who will seek to make his work profitable to him by giving such aid and direction as he may need. Inasmuch as subjects differ greatly, the requirements for all subjects cannot be stated in terms at once specific and uniform. In some departments of knowledge, original research may begin with the student's entrance into the School; in

## CORNELL UNIVERSITY MEDICAL COLLEGE.

other subjects much preliminary work is necessary to fit the student for profitable research.

### MAJOR AND MINOR SUBJECTS.

The branch of knowledge to which the student intends to devote the larger part of his time is termed his major subject. The other fields of study selected, which will be necessarily more restricted in their scope, and which should in general be selected with reference to their direct bearing upon the major subject, are termed the minor subjects. Candidates for the doctor's degree are required to select a major subject and two minor subjects; for the master's degree, a major subject and one minor subject are required. *A statement of the major and minor subjects, approved by the professors with whom the work is taken, must be presented to the Secretary to be forwarded to the Dean not later than two weeks after admission to the Graduate School.* The studies selected by a graduate student who is not a candidate for an advanced degree, must be approved by some member of the Faculty of the Graduate School, who acts as the student's adviser.

### SPECIAL COMMITTEES.

The work of each candidate for an advanced degree is in charge of a committee consisting of two or more teachers under whom the major and minor subjects are pursued, the representative of his major subject being chairman. The student is expected to confer freely with the members of his special committee, not only in connection with individual courses of study but also in regard to the general plan of his work.

### THE DEGREE OF DOCTOR OF PHILOSOPHY.

The degree of Doctor of Philosophy is granted to a student who, after completing not less than three years of resident graduate work, presents a satisfactory thesis and passes an examination.

The doctor's degree is intended to represent, not a specified amount of work covering a specified time, but long study and high attainment in a special field, proved in the first place by the presentation of a thesis which displays the power of independent investigation, and in the second place by passing corresponding examinations upon the ground covered by the major and minor subjects chosen at the beginning of the candidacy. The standard for the doctor's degree is determined by the attainment to the expected of an excellent student, who begins his work with adequate preparation, and devotes his whole time for three years to his major and minor subjects and his thesis.

Examinations for the doctor's degree will occur during the second week before Commencement, unless another date is set by the Dean. These examinations, which may be either oral or written, or both, at the option of the examining committee, are open to all members of the faculty. *Candidates who will have completed the other requirements for the degree in June, must apply to the Dean not later than April 15th for examination.*



## THE GRADUATE SCHOOL.

The thesis for the doctor's degree must be of such character as shall demonstrate the candidate's ability to do original work, and must be satisfactory in style and composition. *A statement of the general subject of the thesis, with the written approval of the chairman of the special committee in charge of the candidate's work, must be furnished the Dean at least six months before the date of the examination.* The completed thesis, approved by the special committee, must be presented to the Dean at least five days before the examination for the degree. This copy may be retained for use at the examination or for binding.

*Each candidate for the doctor's degree shall be required to deposit one hundred printed copies of his thesis with the Dean for the purposes of the university library. In exceptional cases this requirement may be met by depositing with the Dean for the purposes of the university library a bound typewritten copy of the thesis and one hundred printed copies of such a summary and such portion of the thesis as may be recommended by the chairman of the special committee and approved by the General Committee.*

When all other requirements for the doctorate have been fulfilled, the degree may be conferred before the printed copies of the thesis have been received by the Dean, provided that the candidate present, at least five days before the degree is to be conferred, the bound typewritten copy of the thesis, together with a signed statement that publication will take place within a definite period, which period shall not exceed two years; and provided further that he deposit at the same time with the Treasurer of the University the sum of seventy-five dollars. The Treasurer is authorized to accept at his discretion as a guarantee a regularly executed bond instead of the deposit of money. The deposit will be returned if the prescribed number of printed copies of the thesis are furnished within the stated time. But in case the printed copies are not delivered within such time, the University reserves the right to use the deposit to defray the expense of printing the thesis or such portions of it as the Faculty may direct.

The thesis must have both a cover and a title page. The title page must include the statement that the thesis is presented to the Faculty of the Graduate School of Cornell University for the degree of Doctor of Philosophy. The author's name must be given in full, and, if the thesis is a reprint, the place and date of the original publication must be given. If the printing of the thesis is deferred until after Commencement the candidate must deposit a bound typewritten copy with the Dean not later than the Friday preceding Commencement. The size of the page in case of typewritten thesis should be 8 x 10½ inches. This copy of the thesis becomes the permanent property of the library.

Candidates for the doctor's degree will ordinarily be expected to have a working knowledge of French and German before beginning graduate work; and in all cases *they must, before beginning their second year of residence, show to the satisfaction of their special committees that they possess a reading knowledge of those languages.* If the subjects chosen by a candidate are of such character as to make it desirable that he should be familiar with some

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foreign language other than French or German, the special committee may, with the consent of the Dean, permit the substitution of that language for one of the two required.

### PERIOD OF RESIDENCE.

Not all students admitted to the Graduate School may expect to obtain the doctor's degree at the end of the minimum period of three years. Those whose undergraduate work has been insufficient in amount or too narrowly specialized, as well as those whose preparation in their special field is inadequate, must count upon spending some time—determinable by their proficiency—in work of a character not so advanced as that implied in the minimum residence requirement. The minimum residence requirement of three years applies only to graduates of other institutions who have pursued a course of study substantially equivalent to that required for the first degree in one of the colleges of this University.

Residence as a graduate student in another university may, by permission of the Faculty, be accepted as the equivalent of residence at this University. No general statement can be made regarding the conditions under which this permission will be granted; each case will be decided on its merits. A request for credit for resident work elsewhere must be approved by the student's special committee. At least one year's residence in this University is required in all cases.

Residence for a master's degree may be credited toward the residence required for the degree of Doctor of Philosophy, provided the special committee in charge of the work approves, certifying the work done as suitable for the doctor's degree.

Graduate work carried on by a candidate who is at the same time an instructor or an assistant in Cornell University is estimated on the basis of a four years' minimum residence requirement for the doctor's degree.

### FEES.

A matriculation fee of \$10 is charged all students on entering the University. Tuition is \$75 per year, and each graduate student is also charged an administration fee of \$25 per year.

A graduation fee of \$20 is required of each person about to take an advanced degree. This fee must be paid at least ten days before Commencement. The amount will be refunded should the degree not be conferred.

Each student pursuing Laboratory Courses is required to deposit with the clerk of the college the sum of \$10 to cover breakage.

These deposits, less the amount charged for breakage, will be returned at the end of each year.

Tickets must be taken out and paid for at the beginning of the session.

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

## FACILITIES FOR GRADUATE STUDY AND COURSES OF INSTRUCTION.

The courses outlined in the following pages are offered by the Medical College in New York City, and are grouped primarily on the basis of subject matter. Under each subject there is given, in a separate paragraph, a list of courses some of which are too elementary in character to be likely to interest graduate students of that subject. There then follows a list of all those courses which, whether open or not open to undergraduates are deemed likely to be of profit to graduate students.

For courses in the medical sciences offered at Ithaca, the announcement of the Graduate School should be consulted.

### ANATOMY.

Professors: C. R. STOCKARD, C. V. MORRILL, R. CHAMBERS, JR.

Instructors: G. PAPANICOLAOU, L. W. SNEED, J. F. NONIDEZ.

Abundant material and sufficient apparatus are available for advanced study and work in the various branches of anatomy, embryology, histology, comparative morphology, descriptive anatomy, and experimental anatomy. Students desiring to pursue graduate work in any of these branches must have had in their college courses preliminary training in general zoölogy and comparative anatomy. A reading knowledge of German and French is essential.

New York City offers exceptional advantages for obtaining fresh human material. The large slaughter-houses are accessible for comparative mammalian tissues and organs. The extensive collections of specimens and models in the city museums are extremely helpful and instructive to the advanced student.

The members of the staff offer courses in the various phases of anatomy in which they are especially engaged. The courses offered for the medical students appear in this announcement, and are particularly recommended to those students who have not pursued work of this kind. Technical and practical anatomical work are fully provided.

Preliminary Requirements.—Physics, Chemistry and Biology as required for admission to the Medical College.

Morphology; Embryology; Histological Technic; General Histology; Microscopic Anatomy and Organology; Descriptive Anatomy including courses in dissection of the human body; Demonstrations on the Cadaver; Live Anatomy; Topographical Anatomy; Neuro-Anatomy and Neuro-Histology; Applied Anatomy; Organs of Special Sense; Anatomical Research.

*Anatomy of the Living Body.*—Assistant Professor Morrill.

*Special and Topographical Studies of Different Regions.*—Professors Stockard and Morrill.

*Human Histology and Histogenesis.*—Assistant Professor Chambers and Dr. Nonidez.

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*Comparative Embryology*.—Assistant Professor Chambers and Dr. Nonidez.

*Experimental Morphology*.—Professor Stockard.

*Anatomy of the Infant and Postnatal Development*.—Professor Stockard.

### PHYSIOLOGY.

Professor: G. LUSK.

Assistant Professor: D. J. EDWARDS.

Associate: M. RINGER.

Students desiring to elect physiology as a major course, in addition to completing the course in general physiology given to medical students, will be required to undertake some special problems, preferably dealing with aspects of nutrition or circulation. Students electing physiology as a minor course may select either the work in physiology given to medical students or may select only a portion of this course (e. g., nutrition, circulation, etc.) provided an additional amount of special work in these subjects is undertaken.

A preliminary knowledge of chemistry—analytical, organic and physiological, as well as of physics—is requisite for those who select physiology as a major.

Physiology. Comprising Nerve Muscle Physiology, Central Nervous System, Special Senses, Respiration, Circulation, Secretion, Digestion, Metabolism.

*Physiology of Nutrition*.—Professor Lusk; Dr. Ringer.

*Physiology of Circulation*.—Dr. Edwards.

### PHYSIOLOGICAL CHEMISTRY AND CHEMICAL PATHOLOGY.

Professor: S. R. BENEDICT.

Instructors: T. P. NASH, E. OSTERBERG, E. FRANKE.

The laboratories available for advanced work and research in physiological chemistry and chemical pathology include those of the Department of Chemistry, located in the main College building, the new chemical laboratories at Bellevue Hospital, and a research laboratory in the General Memorial Hospital. These laboratories provide adequate equipment for investigation in a great variety of special problems in the chemistry of the plant, animal or human organism in health or disease, by chemical, physical, or optical methods. In the College library the principal journals relating to these subjects are on file.

Students expecting to pursue investigation in physiological chemistry or chemical pathology should have adequate preliminary training in inorganic, analytical and organic chemistry, as well as in physics, physiology, and physical chemistry, though a study of these latter subjects could be pursued at the College, together with more advanced work in special lines.

Organic and Physiological Chemistry; Research.

*Physiological Chemistry*.—Professor Benedict.

*Chemical Pathology*.—Professor Benedict.



## FACILITIES FOR GRADUATE STUDY.

### PATHOLOGY AND BACTERIOLOGY.

Professors: J. EWING; W. J. ELSE; O. H. SCHULTZE; J. C. TORREY;  
E. S. L'ESPERANCE; A. F. COCA.

Instructors: G. W. WHEELER; M. C. KAHN; A. H. RAHE.

The laboratories of pathology, bacteriology and hygiene occupy the fourth floor of the main building and the third and fourth floors of the Loomis Laboratory. The equipment includes all the means commonly employed in pathological research and much new and original apparatus. Both laboratories are provided with suitable quarters for the care of animals. The departmental library includes about 8,000 bound volumes and a large and valuable collection of monographs and reprints. There is an extensive collection of specimens illustrating pathological histology, much material for histological study, and a museum containing about 3,000 specimens. The recent material from the autopsies at several hospitals is constantly available for study, and furnishes a supply of problems in many fields, which is practically inexhaustible. Applicants who have been admitted to the Graduate School are urged to present the degree of Doctor of Medicine for admission to these courses.

Preliminary requirements.—Anatomy, including Histology and Embryology.

General Pathology; Special Pathology; Pathological Anatomy; Medico-legal Pathology; Autopsy Technics; Experimental Pathology; Bacteriology; Immunology; Hygiene and Preventive Medicine.

*General Pathology.*—Professor Ewing.

*Special Pathology.*—Professors Ewing and L'Esperance.

*Bacteriology.*—Professor Elser, Dr. Wheeler and Mr. Rahe.

*Immunology and Serology.*—Professors Elser and Coca.

*Preventive Medicine and Hygiene.*—Professor Torrey.

### PHARMACOLOGY.

Professors: R. A. HATCHER, C. EGGLESTON.

The laboratory of pharmacology, in the Loomis Laboratory, is well equipped for general work and research in pharmacology, and special opportunities will be afforded for doing work involving the action of drugs on the circulatory system, and methods of biological testing of drugs and medicines, either supplementing or replacing chemical tests for activity and identity.

The departmental library is sufficient for the immediate needs of workers, and its facilities are readily amplified by the College and other libraries near by which furnish every opportunity for extending the work.

A preliminary knowledge of Chemistry and Physiology is required.

Materia Medica and Pharmacy; Pharmacology.

*Research in the Pharmacodynamics of Drugs.*—Professors Hatcher and Eggleston.

*Toxicology.*—Professors Hatcher and Eggleston.



FACULTY OF MEDICINE AT ITHACA.

LIVINGSTON FARRAND, A.M., M.D., LL.D.,  
*President.*

ABRAM TUCKER KERR, B.S., M.D.,  
*Secretary of the Medical College at Ithaca,  
Professor of Anatomy.*

SIMON HENRY GAGE, B.S.,  
*Professor of Histology and Embryology, Emeritus.*

BENJAMIN FREEMAN KINGSBURY, PH.D., M.D.,  
*Professor of Histology and Embryology.*

SUTHERLAND SIMPSON, D.Sc., M.D., F.R.S. (Edin.),  
*Professor of Physiology.*

JAMES BATCHELLOR SUMNER, A.M., PH.D.,  
*Assistant Professor of Biochemistry.*

JAMES WENCELAS PAPEZ, A.B., M.D.,  
*Assistant Professor of Anatomy and Neurology.*

STANLEY ROSS BURLAGE, M.A.,  
*Instructor in Physiology.*

AARON BODANSKY, B.S., PH.D.,  
*Instructor in Biochemistry.*

HOWARD S. LIDDELL, A.B.,  
*Instructor in Physiology.*

RUFUS R. HUMPHREY, A.M.,  
*Instructor in Histology and Embryology.*

HOWARD BERNHARDT ADELMANN, A.B.,  
*Instructor in Histology and Embryology.*

DOROTHY SEWELL, A.B.,  
*Assistant in Histology and Embryology.*

SUTHERLAND ERIC SIMPSON, A.B.,  
*Assistant in Anatomy.*

WALTER KENT VAN ALSTYNE, A.B.,  
*Assistant in Anatomy.*

MABEL MARTIN, A.B.,  
*Assistant in Physiology.*

WILLIAM V. WILKERSON, A.B.,  
*Assistant in Histology and Embryology.*

FREDERICK T. SCHNATZ,  
*Assistant in Histology and Embryology.*

## ITHACA DIVISION.

### INSTRUCTION AT ITHACA.

DURING THE FIRST YEAR OF THE COURSE.

#### CALENDAR FOR ITHACA.

##### First Term, 1922-1923.

- September 20, Wednesday—Academic year begins; matriculation of new students; University scholarship examinations begin.
- September 21, Thursday—Matriculation of new students.
- September 22, Friday—Registration of matriculated students.
- September 25, Monday—Instruction begins in all departments of the University at Ithaca. President's annual address to students at 12 M.
- December 21, Thursday—Instruction ends at 1 P.M.
- January 4, Thursday—Instruction resumed at 1 P.M.
- January 11, Thursday—Founder's Day.
- February 7, Wednesday—First term closes.

##### Second Term.

- February 9 and 10, Friday and Saturday—Registration for the second term.
- February 12, Monday—Instruction begins at 8 A.M.
- April 4, Wednesday—Instruction ends at 1 P.M. (Spring recess.)
- April 11, Wednesday—Instruction resumed at 1 P.M.
- June 20, Wednesday—Commencement.

#### General Statement.

From its very foundation Cornell University has offered special courses for students preparing for the study of Medicine; first in the Natural History course, and later also in a special two-year Medical Preparatory course. In 1898 the Medical College was established in New York City with a four years' course. At the same time the work of the first year was duplicated at the University in Ithaca, since many of the fundamental scientific subjects of which this part of the course mainly consists were already provided for in the long-established departments of Botany, Zoölogy, Comparative Anatomy, Physics, Chemistry, Physiology, Histology, Embryology, and Bacteriology. The courses in these departments were modified where necessary and additional courses were added so as to make the work at Ithaca equivalent to the first year in New York City.

Among the facilities of the University of special value to the Medical College may be mentioned the museums of Vertebrate and Invertebrate Zoölogy (including Entomology and Comparative Anatomy), of Agriculture, of Botany, of Geology, and of Veterinary Medicine. The University Library, with its 560,000 volumes and pamphlets, and over 2,500 current periodicals

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and transactions, is as freely open to medical students as to other University students.

Through the generosity of the late Dean Sage, of Albany, the University has been enabled to erect a building especially designed for anatomy, histology, embryology, and physiology. The building is constructed of Ohio sandstone. The general form is that of an E, 157 feet long and 50 feet wide with wings 40 feet square.

In the cellar are the cold-storage, embalming, cremating rooms and store-rooms.

In the sub-basement at the west end is a large room for the string galvanometer and the accessory dark rooms.

In the basement are the ventilating and cold-storage machinery, a large lecture room, a recitation room, and an advanced laboratory for biochemistry and histology, besides the lower part of the large amphitheatre. Here also is located the operating room for the department of physiology.

On the first floor are located the coat rooms for men and women, college office, library, reading room, faculty room, and histology and neurology research laboratory, general laboratory for experimental physiology, demonstration and dark room for physiology, and the upper part of the large amphitheatre.

On the second floor is the department of histology, with a large general laboratory, a research laboratory, preparation rooms, and private laboratories for the instructors. Upon this floor also is located the department of Physiology with a large general laboratory for biochemistry, a research laboratory for biochemistry, a research laboratory for experimental physiology, a metabolism room, an incubator room, repair shop and private laboratories for the instructors.

The third floor consists of the general and special dissecting rooms, study rooms, and amphitheatre, besides rooms for the instructors.

The attic is utilized for photography, macerating the skeletons, and for storage.

The air in the building is constantly changed by forced ventilation. The lighting is especially good in all the rooms.

In the court behind the building is a house for alcohol and inflammables and provision for experimental animals, including a small animal house. A large animal house is located at some distance from the medical building on the University farm.

## ITHACA DIVISION.

### DEPARTMENTS, METHODS AND FACILITIES.

#### ANATOMY.

ABRAM T. KERR, B.S., M.D., *Professor.*

JAMES W. PAPEZ, A.B., M.D., *Assistant Professor of Anatomy and Neurology.*

SUTHERLAND ERIC R. SIMPSON, A.B., *Assistant.*

WALTER K. VAN ALSTYNE, A.B., *Assistant.*

The courses in anatomy are designed to give a comprehensive and detailed study of the structure of the human body.

The work in gross anatomy is concentrated in the first term of the first year. The laboratory is open from eight to five week days, except Saturday afternoon. Twenty-one hours a week are allowed for the required work, but students who have additional hours free may devote more time to the subject. The work consists mainly of dissection followed by recitation on the part dissected. For this work there is an ample supply of dissecting material well embalmed and kept in cold storage ready for use. Each student is required to do a clean and careful dissection of one half of the head, neck, thorax and abdomen, including the pelvis. The regional method of dissection is followed. The student is furnished a systematic laboratory outline so arranged where possible that the structures in each region can be studied together as a topographic, functional or surgical area. It is realized that no one method or point of view is sufficient or applicable to every region. The purpose throughout is to make the student find and identify every structure, to appreciate its functional significance, its relations and its peculiar characteristics, to assemble details into general concepts, to visualize and interpret every region and organ. The aim is to direct the student to work methodically, to observe carefully and to think clearly and independently. He is encouraged to make careful notes and as many drawings as time permits. Where feasible, he is taught to compare his findings on the cadaver with conditions in the living body. An X-ray outfit in the department makes it possible in many regions to compare the X-ray picture from the cadaver with the findings in the dissection. A complete disarticulated skeleton is loaned to each student so that the bones may be available for study when encountered in course of dissection. In addition the department is well equipped with models, cross sections, and special dissections for study and demonstration. For study of the finer structure of the organs, hand lenses and several binocular dissecting microscopes are provided in the laboratory. A student library containing atlases and some of the more important anatomical monographs is in connection with the laboratory. Besides the usual regional recitation on the dissected part, demonstration conferences are held about once a week with the class as a whole or with smaller groups. Occasional lectures are given on matters that cannot be made clear by dissection and demonstrations.

The work in the anatomy of the nervous system and sense organs is given during the second term. It consists mainly of laboratory work with frequent conferences and recitations. A topographic study and dissection of the organ or part precedes or accompanies its microscopic study. Special attention is given to the sense organs, nerves, nuclei, reflex connections, conduction tracts



## CORNELL UNIVERSITY MEDICAL COLLEGE.

and cortical areas that enter into the formation of the more important functional systems. In connection with each organ or part, its development and comparative morphology is considered. For this work an ample supply of human brains, brains of lower mammals, Weigert sections, and other preparations are available.

The department is well equipped to provide facilities for those properly qualified to undertake advanced and research work. Students with special ability or training are permitted to do more than the required work. Where time permits they are encouraged to do advanced or research work.

**1. Anatomy of the Head and Neck.**—First Term. Credit, 4 hours, 21 actual hours a week for 7 or more weeks. Professors Kerr and Papez, Assistants Simpson and Van Alstyne. Laboratory work, dissection, and conferences.

**2. Anatomy of the Thoracic Walls and Viscera.**—First term. Credit, 1 hour, 21 actual hours a week for 2 or more weeks. Professors Kerr and Papez, Assistants Simpson and Van Alstyne. Laboratory work, dissection, and conferences.

**3. Anatomy of the Abdominal and Pelvic Walls and Viscera.**—First term. Credit, 4 hours, 22 actual hours a week for 7 or more weeks. Professors Kerr and Papez, Assistants Simpson and Van Alstyne. Laboratory work, dissection, and conferences.

**5. The Nervous System, Anatomy, Histology, and Development.**—Second term, credit, 3 hours, Assistant Professor Papez. Eleven hours a week laboratory with laboratory demonstrations, conferences and recitations. Dissection of the spinal cord and brain. Microscopic structure and development of the nervous system and organs of special sense.

**6. Anatomy of the Living Body.**—Second term. Credit, 1 hour, 2 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of courses, 1, 2, and 3.

**7. Anatomy of the Upper Extremity.**—First and second terms. Credit, 2 to 3 hours. Professors Kerr and Papez and assistants. Laboratory work, dissection, and conferences.

**8. Anatomy of the Lower Extremity.**—First and second terms. Credit, 2 to 3 hours. Professors Kerr and Papez and assistants. Laboratory work, dissection, and conferences.

**9. Topographical Anatomy.**—First and second terms. Credit, 2 to 5 hours. Prerequisite anatomy courses 1, 2, 3, 7, or 8. The detailed dissection and study of any region. Professor Kerr.

**12. Research in Anatomy.**—First and second terms. Professors Kerr and Papez. Advanced and research work in the laboratories. Open only to those who have taken the necessary preliminary courses, and are properly qualified.



## ITHACA DIVISION.

### HISTOLOGY AND EMBRYOLOGY.

B. F. KINGSBURY, Ph.D., M.D., *Professor.*

RUFUS R. HUMPHREY, A.M., *Instructor.*

HOWARD B. ADELMANN, A.B., *Instructor.*

DOROTHY SEWELL, A.B., *Assistant.*

WILLIAM V. WILKERSON, A.B., *Assistant.*

FREDERICK T. SCHNATZ, *Assistant.*

As indicated by the following courses, this department offers elementary and advanced instruction in the theory and use of the microscope and its accessories, in histology, and embryology; and opportunities for research in all of these subjects.

The material equipment consists of a good supply of modern microscopes, while camera-lucidas, polariscopes, micro-spectroscopes, photo-micrographic cameras, microtomes and other special apparatus such as dark-field illuminators are in sufficient numbers to give each student opportunity for personally learning to use them, and for applying them to any special study in which they are called for. Two projection microscopes are available for class demonstrations and for making the drawings used in reconstruction.

The rooms for the use of the department are on the second floor of Stimson Hall. They are almost perfectly lighted and consist of a large general laboratory, an advanced laboratory, a preparation room, department office, and five private laboratories for the instructing staff, where also special demonstrations of difficult subjects are given to small groups of students.

The collection of material and microscopic series of human embryology, contributed mainly by graduates of the college, is steadily growing. Every encouragement is given for the fullest utilization of the opportunities afforded by the department.

The work of the department consists of practical laboratory work, supplemented by lectures, conferences, and demonstrations. The work required of students of medicine is given in course 10. For those who have already had elsewhere satisfactory work in histology, elective work may be taken in Courses 3, 7, and 8. Courses open to students in the College of Arts and Sciences and Veterinary Medicine are described in the announcements of these colleges.

#### COURSES REQUIRED OF STUDENTS OF MEDICINE.

**10. Histology.**—First term. Credit, 7 hours. Professor Kingsbury and assistant. Required of first-year students of medicine. Five laboratory periods and three lectures each week. The work includes (a) The fundamentals of human development; (b) The histology of the tissues and organs (except the nervous system); (c) The main facts of histogenesis and the development of the organs (except the nervous system). It is highly advantageous that the course be preceded by a course in embryology (see Courses of Instruction of the College of Arts and Sciences, Course 4).

## CORNELL UNIVERSITY MEDICAL COLLEGE.

**10a. Histology.**—First term. Credit, 3 hours. Instructor Adelmann. Special topics in histology and embryology, designed for those who have had acceptable courses in histology and embryology, and to serve as a review. Two laboratory periods and one lecture-conference each week.

### ADVANCED AND ELECTIVE COURSES.

**3. Special Histology and Technique.**—First term. Credit, 2 hours. Instructor ————. One recitation, demonstration, or lecture. Two laboratory periods, M. W. 2-4:30.

In this course a more detailed knowledge of histology and facility in technique is gained by practical work in one or more of the fields of histology or embryology. Designed for those who desire a better working knowledge of histology for use in Biology or Medicine.

**7. Advanced Work in Histology and Embryology.**—First and second terms. Professor Kingsbury and Instructors. Laboratory work, eight or more actual hours a week, with Seminary (Course 8).

This course is designed for those preparing theses for baccalaureate or advanced degrees, and for those wishing to undertake special investigations in histology and embryology.

Course 7 is open to those who have had Courses 10 and 3, or their equivalents. A good reading knowledge of French and German is indispensable for the most successful work in this course. It is suggested that those who intend to take this course confer with the head of the Department as early as possible, so that the work may be planned to the best advantage.

**8. Seminary.**—First and second terms. One hour each week at an hour to be arranged.

For the discussion of current literature and the presentation of original work by the members of the Department staff and those doing advanced work in the Department. It may be taken in connection with Course 3 or Course 7.

### DEPARTMENT OF PHYSIOLOGY AND BIOCHEMISTRY.

SUTHERLAND SIMPSON, M.D., D.Sc., F.R.S. (Edin.), *Professor of Physiology.*

JAMES B. SUMNER, A.M., Ph.D., *Assistant Professor of Biochemistry.*

S. R. BURLAGE, M.A., *Instructor in Physiology.*

A. BODANSKY, B.S., Ph.D., *Instructor in Biochemistry.*

H. S. LIDDELL, A.B., M.A., *Instructor in Physiology.*

V. GRAHAM, M.A., *Instructor in Biochemistry.*

J. L. BENHAM, B.Chem., *Assistant in Biochemistry.*

MABEL MARTIN, A.B., *Assistant in Physiology.*

#### Physiology.

This subject is taught in the first and second terms of the first year, and the work is carried on by means of lectures, recitations, demonstrations, and

## ITHACA DIVISION.

practical laboratory instruction. In the laboratory the student is made to carry out for himself experiments which demonstrate the fundamental facts of the science, and he is taught to draw conclusions from these facts. Special attention is given to experimental methods which are likely to be of importance in the study of clinical medicine.

The following courses are offered:

**1. Physiology of the Cell, Muscle, Nerve, Heart and Circulation, and Respiration.**—First term. Credit, 2 hours. Professor Simpson, and assistants. Three lectures or recitations weekly with demonstrations, where necessary. At frequent intervals written and oral examinations will be held.

**1A. Physiology of Blood, Lymph and Certain Aspects of Circulation.**—First term. Credit, 1 hour. Mr. Burlage. One lecture weekly, written quizzes, and reference reading.

**2. Physiology of Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.**—Second term. Credit, 3 hours. Professor Simpson, and assistants. Five lectures or recitations weekly for the first ten weeks of the term, with demonstrations and examinations as in Course 1. The latter part of this course will be taken up with a review of the whole subject.

**4. Experimental Physiology.**—Second term. Credit, 4 hours. Professor Simpson, Instructor Liddell and assistants. Two five-hour laboratory periods a week. In this course the physiology of the cell, muscle, nerve, heart and circulation, respiration, alimentary system including liver and pancreas, internal secretion, body temperature and animal heat, nervous system and special senses will be studied practically by each student individually under the direct superintendence of the professor and assistants. The course will be supplemented by demonstrations whenever necessary. Practical examinations will be held from time to time, and the student's knowledge of the work tested orally at each meeting.

**4A. Experimental Physiology.**—Second term. Credit, 1 hour. Instructor Burlage. One 3-hour laboratory period a week. In this course the physiology of blood, blood-pressure and pulse in man, polygraphic and electrocardiographic work will be studied practically.

**5. Physiology of the Nervous System and Special Senses.**—Second term. Credit, 2 hours. Professor Simpson. This is given as a special course of lectures, five weekly for the last six weeks of the term, after the student has studied the anatomy of the brain and spinal cord, and special sense organs.

**7. Seminary.**—Second term. Credit, 1 hour.. A seminary is held in association with Biochemistry, at which current literature is discussed, and the results of original investigations carried on by workers in the laboratories are presented for criticism. Students who attend these meetings and take part in the discussions are organized in a Journal Club as a branch of the Vesalian Society in the New York Division of the College. Each student is expected to give a communication on at least one occasion during the term.

8. **Advanced Work and Research.**—The laboratory is open daily from 8 A.M. till 6 P.M. for advanced work and original investigation under the direction of the professor and assistants.

### Biochemistry.

In this section the student is taught the chemistry of the tissues, fluids, sections, and excretions of the human body; the composition of food-stuffs, and the phenomena of their digestion, absorption, and assimilation; the rôle of enzymes in the animal economy; the principles of nutrition; and the leading facts of general and special metabolism. Organic chemistry is reviewed with particular reference to the needs of the student of medicine and the principles of physical chemistry and their application in the study of the cell processes are taught in the lecture room and laboratory. Instruction is given in the use of analytical methods for the examination of biological products, both normal and pathological. Those methods are principally considered which have found an application in scientific medicine, and special attention is devoted to the quantitative analysis of the gastric contents, milk, and urine. Each student completes the course of performing a metabolism experiment upon himself.

The bulk of the instruction is given in the laboratory. As occasion arises, the student's individual work there is supplemented by experimental demonstrations; while by means of lectures and recitations it is sought to coördinate the whole, and to expound the theoretical aspects of the subject.

The following courses are offered:

**15A. General Biochemistry.**—First term. Credit, 4 hours. Three lectures or recitations and one three-hour laboratory period weekly, supplemented by demonstrations, conferences, and written reviews, Assistant Professor Sumner and Dr. Bodansky. Required of first year students of medicine.

**15B. General Biochemistry.**—Second term. Continuation of 15A. Credit, 5 hours. Three lectures or recitations and three three-hour laboratory periods weekly; supplemented by demonstrations, conferences and written reviews. Assistant Professor Sumner and Dr. Bodansky. Required of first year students of medicine.

**17. Special Chapters in Biochemistry.**—First term. Credit, 1 hour. Assistant Professor Sumner. One lecture weekly on some selected province of biological chemistry. Hour to be arranged. This is an elective course for advanced students or graduates.

**20. Advanced and Research Work in Biochemistry.**—First and second terms. Assistant Professor Sumner. The laboratory is open daily to all qualified persons for advanced instruction or the prosecution of research. Courses are arranged to suit the training and requirements of the individual student.

7. **Seminary.**—See Physiology, Course 7.



## ITHACA DIVISION.

### SCHEDULE AND SUMMARIZED STATEMENT.

In this schedule the counts or University hours are given on the following basis: One recitation or lecture weekly for one term or half year gives a credit of one; for laboratory work it requires two and one-half actual hours weekly for a term or half year to secure a credit of one.

#### SCHEDULE OF REQUIRED COURSES.

##### *First Term.*

|                    | No. of<br>Course | University<br>Hours | Actual<br>Hours<br>Weekly |
|--------------------|------------------|---------------------|---------------------------|
| Anatomy .....      | 1 to 3           | 9                   | 21                        |
| Physiology .....   | 1                | 3                   | 3                         |
| Biochemistry ..... | 15A              | 2                   | 4                         |
| Histology .....    | 10               | 8                   | 17                        |
|                    |                  | 22                  | 45                        |

##### *Second Term.*

|                    |    |    |    |
|--------------------|----|----|----|
| Physiology .....   | 2  | 3  | 3  |
| Physiology .....   | 4  | 5  | 12 |
| Physiology .....   | 5  | 2  | 2  |
| Physiology .....   | 7  | 1  | 1  |
| Biochemistry ..... | 15 | 7  | 13 |
| Anatomy .....      | 5  | 3  | 10 |
| Anatomy .....      | 6  | 1  | 2  |
|                    |    | 22 | 43 |

#### SUMMARY OF REQUIRED COURSES.

##### *First Term.*

1. **Anatomy of the Head and Neck.**—Credit, 4 hours, 22 actual hours a week for 7 weeks. Professors Kerr and Papez and assistants. Laboratory work, dissection, and conferences.

2. **Anatomy of the Thoracic Walls and Viscera.**—Credit, 1 hour, 22 actual hours a week for 2 weeks. Professors Kerr and Papez and assistants. Laboratory work, dissection, and conferences.

3. **Anatomy of the Abdominal and Pelvic Walls and Viscera.**—Credit, 4 hours, 22 actual hours a week for 7 weeks. Professors Kerr and Papez and assistants. Laboratory work, dissection, and conferences.

1. **Physiology of the Cell, Muscle, Nerve, Heart and Circulation, and Respiration.**—Credit, 2 hours. Professor Simpson and assistants. Three lectures, demonstrations, or recitations weekly.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

**1A. Physiology of Blood, Lymph, and Certain Aspects of Circulation.**—Credit, 1 hour. One lecture weekly.

**15A. General Biochemistry.**—Credit, 4 hours. Three lectures or recitations and one three-hour laboratory period weekly supplemented by demonstrations, conferences, and written reviews. Assistant Professor Sumner and Dr. Bodansky.

**10. Histology.**—Credit, 6 hours. Professor Kingsbury and assistant. Four laboratory periods and two lectures each week.

### *Second Term.*

**2. Physiology of Respiration, Digestion, Excretion, Internal Secretion, Animal Heat, and Reproduction.**—Credit, 3 hours. Professor Simpson and assistants. The latter part of the course will be taken up with a review of the whole subject. Five lectures or recitations weekly for the first ten weeks of the term with demonstrations and examinations.

**4. Experimental Physiology.**—Credit, 4 hours. Professor Simpson, Instructor Liddell, and assistants. Two five-hour laboratory periods a week. This course will be supplemented by demonstrations whenever necessary.

**4A. Experimental Physiology.**—Credit, 1 hour. Instructor Burlage. One 3-hour laboratory period a week.

**5. Physiology of the Nervous System and Special Senses.**—Credit, 2 hours. Professor Simpson. Five lectures a week for the last six weeks of the term.

**15B. General Biochemistry.**—Credit, 5 hours. Two lectures or recitations and three three-hour laboratory periods weekly, supplemented by demonstrations, conferences, and written reviews. Assistant Professor Sumner and Dr. Bodansky.

**5. The Nervous System Anatomy, Histology, and Development.**—Credit 4 hours. Assistant Professor Papez. Eleven actual hours a week. Dissection of the spinal cord and brain. Microscopic structure of the nervous system and organs of special sense.

**6. Anatomy of the Living Body.**—Credit, 1 hour, 2 actual hours a week. Professor Kerr. Interpretation of dissecting room material by means of the living body, frozen sections, and special preparations. A review of the work of courses 1, 2, and 3.

**7. Seminary. Physiology.**—Credit, 1 hour. Each student is expected to give a communication on at least one occasion during the term.

### REQUIREMENTS FOR ADMISSION.

The requirements for admission are identical with those of the Medical College at New York City (see page 24).

## ITHACA DIVISION.

### THE COMBINED A.B. AND M.D. DEGREES.

It will be seen from Section II of the requirements for admission that the two degrees, Bachelor of Arts and Doctor of Medicine, may be obtained in seven years. The first three years must be taken in a College of Arts and Sciences. The fourth year is the first year in the Medical College, and may be pursued either at Ithaca or in New York City. At the end of it the student receives the degree of A.B. The last three years are taken entirely in the Cornell University Medical College at New York City.

In the first and second years of the course in Arts and Sciences at Cornell University, a student must complete at least six hours of work in English; six hours in one or more modern languages other than English; six hours in Philosophy and Mathematics; and six hours in Science.

The previous training and the personal aptitude and liking of students varies so greatly that it seems inadvisable to recommend fixed requirements for all. The following recommendations where they are specific as to courses apply to students in Cornell University. Students in their first year in college should study English, and unless they have a reading knowledge of both French and German they should take up the language in which they are deficient. It is advisable in the first year to take Physics, course 3, lectures, recitations, and laboratory work during the first term, and to begin the work in Chemistry in the second term, taking Elementary Inorganic Chemistry course 101. It is also desirable to begin Biological work in this year taking course 1 in Zoölogy.

In the second year, Qualitative and Quantitative Analysis, courses 210 and 225 should be taken. Comparative Anatomy, course 3, and Comparative Morphology, course 4, are desirable subjects at this time. Psychology should be taken this year and such other courses in Philosophy as appeal to the individual student. Elementary Economics is advised and such courses in History as are warranted by the previous study.

In the Junior year it is recommended that students take Organic Chemistry, course 375, Histology, course 1, and Embryology, course 4. Other desirable courses are Social Science, course 55; Citizenship, course 57; Histology, courses 2 and 3; Anatomical Methods, course 22; Public Speaking, Free Hand Drawing, and additional work in History and Philosophy, Photography, X-Ray photography, more Organic Chemistry and Physical Chemistry, Parasitology, and Medical Entomology, Botany and Mathematics. It is strongly recommended that freshmen should plan at the beginning of their course the work of the three years in Arts. The Secretary of the Medical College will be glad to confer with students who expect to study medicine and to help them arrange their plan of Arts work so as to meet best their individual needs.

### RESIDENCE AND REGISTRATION.

The college year is nine months long, extending from the last of September till about the middle of June, and is divided into two nearly equal terms. (For exact dates, see calendar on page 97.)

## CORNELL UNIVERSITY MEDICAL COLLEGE.

No credit is given for work done in absentia. For leave of absence during the session, application should be made to the Secretary.

At the beginning of the term students must register with the University Registrar, in Morrill Hall. After registration with the University Registrar, they must register with the Secretary of the Medical College, in Stimson Hall.

### EXAMINATIONS.

Students are advanced in course from one year to the next upon passing examinations upon the work of that year. The work of each year is considered final of itself. There is no unnecessary repetition of subjects taught from year to year. According to the usage of the other colleges, the University student found to be markedly deficient will be dropped from the College at the end of the term in which such deficiency is shown. In the case of a student so dropped, an application for re-admission will not be considered at all until after the expiration of one term.

### ADVANCEMENT FROM FIRST TO SECOND YEAR.

Upon the completion of the year in Ithaca, the student must obtain from the Faculty a statement of all the work which he has done; and accompanying this statement must be a recommendation that he be allowed to register in the New York division of the Medical College. As a student is not advanced from one year to another in the New York division until all the work of the year is completed, a student from Ithaca cannot enter the second-year class in New York until the entire schedule of the first year has been successfully completed. For removing any conditions, examinations are held at the beginning of the fall term, both in Ithaca and in New York City. The student is at liberty to take these examinations in Ithaca or in New York City. The examination on a subject in either place is final for that year. That is, the student will not be permitted to try an examination on a subject in Ithaca, and take advantage of the later date for the examination in New York to have a second examination on the same subject in the same autumn.

### CHARGES FOR INSTRUCTION.

#### FIRST YEAR.

|                           |          |
|---------------------------|----------|
| Matriculation . . . . .   | \$10.00  |
| Tuition . . . . .         | 300.00   |
| Laboratory Fees . . . . . | 35.00    |
|                           | <hr/>    |
|                           | \$345.00 |

All tuition and other fees may be changed or increased by the Trustees to take effect at any time without previous notice.

To secure payment for breakage of instruments, apparatus, etc., each student is required to deposit with the treasurer \$10. This deposit, less the amount charged for breakage, will be returned at the end of the year.

## *ITHACA DIVISION.*

### **RESIDENTIAL HALLS.**

The University has five residential halls for men students situated on the Campus and furnishing accommodations for about 420 men. For particulars address University Treasurer, Ithaca, N. Y. There are, also, many private boarding and rooming houses near the University Campus. In these the cost of board and furnished room, with heat and light, varies from \$8 to \$12 a week. By the formation of clubs, students are sometimes able to reduce their expenses for room and board. Cafeterias are maintained by the University in Cascadilla Hall and near the Baker Dormitories, and one by the College of Agriculture in the Home Economics Building, where meals may be obtained at nominal prices.

Before engaging rooms, students should carefully examine sanitary conditions and should particularly insist on satisfactory and sufficient fire escapes. The University publishes and distributes a list of approved rooming houses. This list is ready for distribution August 15. New students are advised to come to Ithaca a few days in advance of the beginning of the University duties in order that they may have ample time to secure room and board before the opening of the academic year. The Freshman Advisory Committee offers its assistance to new students in the selection of rooming and boarding houses.

The residential halls for women students are Sage College and Prudence Risley Hall. In these buildings, which are exclusively for women students, the total cost of board, laundry and rent of furnished rooms, with heat and light, is \$400 a year. The halls are heated by steam, and lighted by electricity. The University Dean of Women has jurisdiction over all women students in the University, and women students are not permitted to board and lodge outside of the halls for women except in houses approved by the Dean, and subject to her direction. Prospective women students should write to the Dean of Women for information concerning any matters in which they may need assistance. Dormitory facilities for women are inadequate, and prospective students desiring such accommodations are urged to make early application. Inquiries in regard to board and rooms in the women's halls should be addressed to The Manager of Residential Halls, Sage College, Ithaca, N. Y.



# CORNELL UNIVERSITY MEDICAL COLLEGE

## ITHACA, N. Y.

### FIRST YEAR SESSION 1921-1922—FIRST TERM

|        | 8                  | 9            | 10                            | 11      | 12           | 2                             | 3 | 4 | 5 |
|--------|--------------------|--------------|-------------------------------|---------|--------------|-------------------------------|---|---|---|
| Mon.   | Histology 10       |              |                               | Anatomy |              | Anatomy                       |   |   |   |
| Tues.  | Phys.              | Biochemistry |                               |         | Histology 10 | Anatomy                       |   |   |   |
| Wed.   | Histology 10       | Anatomy      |                               |         |              | Anatomy                       |   |   |   |
| Thurs. | Bio. Chem.         | Phys.        | Histology 10<br>Histology 10A |         |              | Anatomy                       |   |   |   |
| Fri.   | Histology 10       |              | Anatomy                       |         |              | Histology 10<br>Histology 10A |   |   |   |
| Sat.   | Histology 10 & 10A | Phys.        | Histology 10                  |         |              |                               |   |   |   |

### FIRST YEAR—SESSION 1921-1922—SECOND TERM

|        | 8              | 9          | 10             | 11 | 12 | 2              | 3 | 4 | 5          |
|--------|----------------|------------|----------------|----|----|----------------|---|---|------------|
| Mon.   | Nervous System |            |                |    |    | Nervous System |   |   |            |
| Tues.  | Anat. Rev.     | Phys.      | Physiology     |    |    | Physiology     |   |   |            |
| Wed.   | Phys.          |            | Nervous System |    |    |                |   |   |            |
| Thurs. | Anat. Rev.     | Phys.      | Physiology     |    |    | Physiology     |   |   |            |
| Fri.   | Phys.          | Bio. Chem. | Biochemistry   |    |    | Biochemistry   |   |   | Phys. Sem. |
| Sat.   | Phys.          | Bio. Chem. | Biochemistry   |    |    |                |   |   |            |



*CORNELL UNIVERSITY MEDICAL COLLEGE.*

**GRADUATES, 1921.**

**Doctors of Medicine, June 9, 1921.**

|                                   |  |
|-----------------------------------|--|
| Horace Strow Baldwin.....         | New York Hospital<br>B.S., 1917, Wesleyan University.                        |
| George Frederic Bock.....         | Buffalo General Hospital<br>A.B., 1918, Cornell University.                  |
| Harold Elmer Bogart.....          | Gouverneur Hospital<br>A.B., 1918, Cornell University.                       |
| Lemuel Goldstein Caro.....        | St. Mark's Hospital<br>A.B., 1918, Cornell University.                       |
| John Russell Carty.....           | New York Hospital<br>B.S., 1917, Princeton University.                       |
| William S. Collens.....           | Mt. Sinai Hospital<br>B.S., 1917, College of the City of New York.           |
| Nelson Warren Cornell.....        | New York Hospital<br>A.B., 1918, Cornell University.                         |
| Madeline Fries .....              | New York Infirmary for Women and Children<br>A.B., 1918, Cornell University. |
| Elizabeth Mills Fulton.....       | New York Infirmary for Women and Children<br>A.B., 1918, Cornell University. |
| Wayne Willard Hall.....           | Lenox Hill Hospital<br>B.S., 1917, Alabama Polytechnic Institute.            |
| Frank Charles Henry, Jr.....      | Perth Amboy, N. J.<br>A.B., 1918, Cornell University.                        |
| George Foster Herben.....         | Brooklyn Hospital<br>B.S., 1916, Rutgers College.                            |
| Israel Kenneth Hoffman.....       | Gouverneur Hospital<br>B.S., 1918, College of the City of New York.          |
| Harriet Hosmer .....              | Buffalo City Hospital<br>A.B., 1918, Cornell University.                     |
| Godel I. Hunter.....              | Newark City Hospital<br>B.S., 1917, College of the City of New York.         |
| Pasquale Joseph Imperato, Jr..... | St. John's Hospital<br>B.S., 1917, College of the City of New York.          |
| Charles Kaufman.....              | City Hospital<br>B.S., 1917, College of the City of New York.                |
| Dwight Rufus Knapp.....           | Roosevelt Hospital<br>A.B., 1915, Yale University.                           |
| John Robert Andrew Lang, Jr.....  | French Hospital<br>A.B., 1918, Colgate University.                           |
| Santos Bellini Lucent.....        | St. Francis' Hospital<br>A.B., 1918, College of the City of New York.        |
| Robert Ozias Loebel.....          | Bellevue Hospital<br>A.B., 1917, College of the City of New York.            |
| Santos Bellini Lucent.....        | St. Francis' Hospital<br>B.S., 1917, College of the City of New York.        |

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|                                |   |
|--------------------------------|---|
| Max Bernard Lurie.....         | Glockner Hospital and Sanitarium, Colo.                                   |
| A.B., 1917,                    | College of the City of New York.  |
| Robert Bush McGraw.....        | Bellevue Hospital   |
| A.B., 1918,                    | Cornell University.   |
| Arthur Matthews Master.....    | Mt. Sinai Hospital  |
| B.S., 1916,                    | College of the City of New York.  |
| Kingsley Darwin Maynard.....   | Methodist Episcopal Hospital  |
| A.B., 1918,                    | Cornell University.   |
| Henry Gray Morris.....         | City Hospital   |
| A.B., 1918,                    | Cornell University.   |
| Leighton Payson Rand.....      | Bellevue Hospital   |
| A.B., 1916,                    | Cornell University.   |
| Joseph Rosenblum .....         | St. Mark's Hospital   |
| B.S., 1915,                    | College of the City of New York.  |
| Adelaide Helen Ross.....       | Bellevue Hospital   |
| A.B., 1916,                    | Wellesley College.  |
| Paul Farr Russell.....         | Bellevue Hospital   |
| A.B., 1916,                    | Boston University.  |
| Ralph William Schaeffer.....   | Rochester General Hospital  |
| B.S., 1916,                    | University of Rochester.  |
| Irving Schwartz .....          | Rhode Island Hospital   |
| B.S., 1917,                    | College of the City of New York.  |
| Samson Abraham Seley.....      | Brooklyn Jewish Hospital  |
| A.B., 1918,                    | Cornell University.   |
| Lewis Julian Silvers.....      | Southern Pacific General Hospital   |
| B.S., 1918,                    | Cornell University.                      and Lane Hospital, San Francisco |
| Walter Fox Smith.....          | Watertown, N. Y.  |
| A.B., 1918,                    | Cornell University.   |
| Katherine Douglas Speiden..... | Birmingham, England   |
| A.B., 1917,                    | Wellesley College.  |
| Robert George Stewart.....     | French Hospital   |
| B.S., 1917,                    | New York University.  |
| William Malcolm Stobbs.....    | Bellevue Hospital   |
| A.B., 1915,                    | Cornell University.   |
| Henry Bruner Sutton.....       | New York Hospital   |
| A.B., 1916,                    | Cornell University.   |
| Curtis Carver Tripp.....       | Massachusetts General Hospital  |
| A.B., 1918,                    | Dartmouth College.  |
| David Warshaw.....             | Mt. Sinai Hospital  |
| A.B., 1916,                    | Cornell University.   |
| Hyla Stowell Watters.....      | Bellevue Hospital   |
| A.B., 1915,                    | Smith College.  |
| Harry Weaver .....             | Bellevue Hospital   |
| A.B., 1918,                    | Cornell University.   |
| Edward Theodore Wilkes.....    | Bellevue Hospital   |
| A.B., 1918,                    | College of the City of New York.  |
| Paul Truitt Willis.....        | French Hospital   |
| A.B., 1918,                    | Cornell University.   |

STUDENT REGISTER.

STUDENTS, 1921-1922.

Candidates for the Degree of Doctor of Medicine.

FOURTH YEAR.

- Otelia Josephine Bengtsson, A.B., 1919, Cornell University, Ossining, N. Y.  
Albert Blau, A.B., 1918, College of the City of New York, New York, N. Y.  
Camillo Anthony Cerchiara, A.B., 1918, College of the City of New York,  
New York, N. Y.  
Mary Elizabeth Childs, A.B., 1917, Wellesley College....Bernardsville, N. J.  
Julius Nathaniel Cohen, B.S., 1918, College of the City of New York,  
New York, N. Y.  
Joseph Henry Diamond, A.B., 1919, Cornell University, New Brighton, N. Y.  
Dorothy Edwards, B.S., 1917, Northwestern University.....Tallula, Ill.  
Jeanette Evans, B.S., 1914, Cornell University.....Conklin, N. Y.  
Lester Mahan Felton, B.S., 1919, Dartmouth College.....Worcester, Mass.  
Abraham Fine, A.B., 1919, Cornell University.....Brooklyn, N. Y.  
Sidney Friedman, A.B., 1919, College of the City of New York,  
New York, N. Y.  
Helen Gavin, A.M., 1913, Columbia University.....New York, N. Y.  
Jacob Goeller, A.B., 1919, College of the City of New York..Irvington, N. J.  
Harry Gold, A.B., 1919, Cornell University.....Schenectady, N. Y.  
Kenneth Gibson Hancher, B.S., 1915, M.S., 1916, Ohio State University,  
Ellwood City, Pa.  
Edwin Toal Hauser, A.B., 1916, College of the City of New York,  
New York, N. Y.  
Katharine Havard, A.B., 1915, Newcomb College-Tulane University,  
New Orleans, La.  
Clement Alphonsus Jarka, A.B., 1916, Seton Hall College..Mt. Carmel, Pa.  
Reuben Kayser, B.S., 1918, College of the City of New York, New York, N. Y.  
Michael Lake, A.B., 1919, Cornell University.....New York, N. Y.  
Leo Paul Larkin, A.B., 1917, Cornell University.....Ithaca, N. Y.  
Callie H. Larrabee, A.B., 1918, University of Maine.....Frankfort, Me.  
Joseph Milton Levine, A.B., 1919, Cornell University.....Brooklyn, N. Y.  
Leon Isaac Levine, B.S., 1918, College of the City of New York,  
New York, N. Y.  
Edward Harry Levy, A.B., 1918, College of the City of New York,  
Yonkers, N. Y.  
James Carlisle McLeod, A.B., 1917, University of North Carolina,  
Florence, S. C.  
Elizabeth MacNaughton, A.B., 1917, Wellesley College....Brookline, Mass.  
Walter Russell Mead, A.B., 1918, Yale University.....Geneva, Ohio  
Charles Stern Miller, A.B., 1919, Cornell University.....Corona, N. Y.  
Dean Crawford Moore, A.B., December 1918, Cornell University..Newark, N. J.  
Louis J. Morse, A.B., 1918, College of the City of New York,  
Richmond Hill, N. Y.

# CORNELL UNIVERSITY MEDICAL COLLEGE.

Irving Newman, A.B., 1918, College of the City of New York,  
Brooklyn, N. Y.  
Paul Fordham Nugent, A.B., 1919, Cornell University....Southampton, N. Y.  
Roger Sherman Palmer, A.B., 1910, Pomona College.....New York, N. Y.  
Rupert Albert Schrankel, A.B., 1919, Cornell University.....Buffalo, N. Y.  
Ainsworth Lockhart Smith, A.B., 1919, Cornell University....Brooklyn, N. Y.  
Carl H. Smith, A.B., 1915, College of the City of New York. A.M., 1917, ..  
Columbia University .....New York, N. Y.  
Heine Smulovitz, A.B., 1919, College of the City of New York,  
New York, N. Y.  
Mary Burchard Spahr A.B., 1918, Wellesley College.....New York, N. Y.  
Charles Stahl, A.B., 1919, Cornell University.....Albany, N. Y.  
John Arthur Taylor, B.S., 1918, Union College.....Schenectady, N. Y.  
Lawrence Dorland Thompson, B.S., 1917, Rutgers College....Rutherford, N. J.  
Harry Vesell, A.B., 1919, College of the City of New York, New York, N. Y.

## THIRD YEAR.

Cullen Adlerblum, A.B., 1912, College of the City of New York,  
New York, N. Y.  
Jacob Applebaum, A.B., 1919, College of the City of New York,  
New York, N. Y.  
Lionel Sandler Auster, A.B., 1919, College of the City of New York,  
New York, N. Y.  
Francis Jarvis Bean, A.B., 1917, Clark College.....Worcester, Mass.  
Jacob Baruch Berglas, A.B., 1919, Cornell University.....Brooklyn, N. Y.  
Harry Sidney Berkoff, A.B., 1920, Cornell University.....Brooklyn, N. Y.  
Joseph Judah Berkowitz, B.S., 1918, College of the City of New,  
New York, N. Y.  
Morris Berkowitz, A.B., 1920, Cornell University.....Brooklyn, N. Y.  
Earl Cluff Bonnett, A.B., 1920, Cornell University.....Provo, Utah.  
Melvin Morris Brodie, B.S., 1917, College of the City of New York,  
New York, N. Y.  
Charles Alfred Brown, A.B., 1918, Yale University.....Waterbury, Conn.  
Charles Stanford Byron, A.B., 1920, Cornell University....Brooklyn, N. Y.  
David Danishefsky, A.B., 1919, College of the City of New York,  
New York, N. Y.  
Samuel Donner, A.B., 1918, Yale University.....Hartford, Conn.  
William Perry Elliott, A.B., 1919, Cornell University....New Berlin, N. Y.  
Abraham Feitelberg, A.B., 1920, Cornell University.....New York, N. Y.  
Alfred Elias Fischer, A.B., 1919, Cornell University.....New York, N. Y.  
Alfred Glennon Flagg, A.B., 1918, Clark University.....Worcester, Mass.  
Sidney Harold Freilich, B.S., 1919, College of the City of New York, ..  
New York, N. Y.  
Sara Aurelia Froomeess, A.B., 1917, Hunter College.....Elizabeth, N. J.  
Theodore Gallup, A.B., 1918, St. Lawrence College.....Ensley, Ala.  
Jerome Glaser, A.B., 1919, Cornell University.....Sayre, Pa.  
Isabel Globus, A.B., 1919, Hunter College.....Brooklyn, N. Y.



# STUDENT REGISTER.

- Richard Everest Gove, A.B., 1920, Cornell University.....Peru, N. Y.  
 Kristian Gosta Hansson, A.B., 1920, Cornell University....Cambridge, Mass.  
 Robert Elwood Heimbach, A.B., 1917, Princeton University, Quakertown, Pa.  
 Samuel Hochman, B.S., 1918, Cornell University.....New York, N. Y.  
 Marjorie Ross Hopper, A.B., 1919, Smith College.....Nyack, N. Y.  
 Michael Iserman, B.S., 1919, College of the City of New York,  
 New York, N. Y.  
 Myron Robinson Jackson, B.S., 1919, Trinity College.....Norwich, Conn.  
 Benjamin Jacobs, B.S., 1919, College of the City of New York,  
 New York, N. Y.  
 Leif George Jensen, A.B., 1920, Columbia University,  
 Port Richmond, S. I., N. Y.  
 Charles Kantor, B.S., 1919, College of the City of New York,  
 New York, N. Y.  
 Winifred Kirk, A.B., 1915, Cornell University.....Chatham, N. J.  
 Hyman Klein, A.B., 1920, Cornell University.....Brooklyn, N. Y.  
 Harry Essliër Kroin, A.B., 1920, Cornell University.....Brooklyn, N. Y.  
 Philip Levine, B.S., 1919, College of the City of New York, Brooklyn, N. Y.  
 Lawrence Levy, B.S., 1917, College of the City of New York,  
 New York, N. Y.  
 John Francis McDermott, B.S., 1917, Union College.....Schenectady, N. Y.  
 Jennie Elizabeth Mabee, A.B., 1919, Cornell University.....Ithaca, N. Y.  
 Leo Markowitz, A.B., 1919, College of the City of New York,  
 New York, N. Y.  
 Margaret Grace Merriss, A.B., 1914, Cornell University.....Brooklyn, N. Y.  
 Ruth Mae Morris, A.B., 1919, Wellesley College.....Chicago, Ill.  
 Gladys Marie Muller, A.B., 1917, Cornell University.....Brooklyn, N. Y.  
 Eleanor Janet Murphy, A.B., 1918, A.M., 1919, University of Wisconsin,  
 Buffalo, N. Y.  
 Samuel H. Nerenstone, A.B., 1918, College of the City of New York,  
 New York, N. Y.  
 Charles Julius Oppenheim, Ph.B., 1917, M.S., 1919, University of Chicago,  
 New York, N. Y.  
 Samuel Jones Pashley, B.S., 1919, Colgate University, Hudson Falls, N. Y.  
 Louis Leo Perkel, B.S., 1919, New York University.....Jersey City, N. J.  
 Philip Reichert, A.B., 1918, College of the City of New York,  
 New York, N. Y.  
 Lester Rosenberg, B.S., 1917, College of the City of New York,  
 Brooklyn, N. Y.  
 Joseph Shiffer, A.B., 1920, Cornell University.....Brooklyn, N. Y.  
 Samuel Silber, B.S., 1919, College of the City of New York, Brooklyn, N. Y.  
 Sidney Attilio Thompson, A.B., 1918, Wesleyan University,  
 Greenwich, Conn.  
 Edward Tolstoi, A.B., 1919, Yale University.....New Haven, Conn.  
 Samuel W. Vernick, B.S., 1919, College of the City of New York,  
 New York, N. Y.  
 William Allen Walker, A.B., 1920, Cornell University.....Byron, N. Y.



## CORNELL UNIVERSITY MEDICAL COLLEGE.

- Samuel Weinreb, B.S., 1920, College of the City of New York,  
Brooklyn, N. Y.
- Samuel Weinstein, B.S., 1920, College of the City of New York,  
New York, N. Y.
- Soma Weiss (ex 1920), University of Budapest, A.B., 1921, Columbia  
University ..... New York, N. Y.
- Harriet Marion White, A.B., 1914, Vassar College, Richmond Hill, L. I., N. Y.
- Mildred Marie Wicker, A.B., 1919, Cornell University ..... Livonia, N. Y.
- Meyer Wigdor, B.S., Feb., 1917, A.M., 1917, Cornell University,  
New York, N. Y.
- Abraham Lincoln Wincor, A.B., 1920, Cornell University, New York, N. Y.
- Margaret Shepard Witter, A.B., 1917, Smith College, Rhinebeck, N. Y.

### SECOND YEAR.

- Henri Ernest Abel, A.B., 1920, Colgate University, Elizabeth, N. J.
- Benjamin Israel Ashe, B.S., 1920, College of the City of New York,  
Brooklyn, N. Y.
- Samuel Hopkins Bassett, A.B., 1920, Cornell University,  
Coleman's Station, N. Y.
- Charles Edward Harold Bates, A.B., 1921, Stanford University, Alameda, Cal.
- Barbara Beattie, A.B., 1920, Vassar College, Linneton, N. H.
- Edith Dorothy Bell, A.B., 1920, Wellesley College, Salisbury, Conn.
- LeRoy Walton Black, Ph.B., A.M., 1920, Brown University, Rutherford, N. J.
- Joseph Roosevelt Breibart, A.B., 1920, Ohio State University,  
Cleveland, Ohio
- Herbert Cecil Brokenshire, B.S., 1920, Middlebury College, Lincoln, Mass.
- Ruth Foster Crabtree, A.B., 1921, Barnard College, Montgomery, N. Y.
- Frederick Anthony Cracco, A.B., 1921, Cornell University, Jersey City, N. J.
- Irene Davis, A.B., 1921, Cornell University, Pittsburgh, Pa.
- Johanna Mary Dieckmann, A.B., 1921, Cornell University, Buffalo, N. Y.
- David Lion Drabkin, A.B., 1919, College of the City of New York,  
New York, N. Y.
- Robert Gill Mills Danovant, A.B., 1917, Wofford College, Edgefield, S. C.
- Garrett DeNoye Duryea, A.B., 1921, Cornell University, Brooklyn, N. Y.
- Bernard Samuel Fein, A.B., 1920, New York University, Newark, N. J.
- Robert Kenneth Felter, A.B., 1920, Cornell University, Pearl River, N. Y.
- Julian Maxwell Freston, A.B., 1921, Cornell University, Highland, N. Y.
- Thomas Joseph Garrick, A.B., 1917, Boston College, Somerville, Mass.
- Alice Strains Gibb, A.B., 1918, Barnard College, New York, N. Y.
- Francis D. Gunn, A.B., 1921, Cornell University, Lexington, Ky.
- Harlan S. Heim, A.B., 1920, Western Union College, Dawson, Neb.
- Joseph Herzstein, B.S., 1913, College of the City of New York, M.S.  
1918, Massachusetts Institute of Technology, New York, N. Y.
- Martin Francis Hession, A.B., 1917, College of the City of New York,  
New York, N. Y.
- Raymond Owen Hitchcock, A.B., 1920, Cornell University, Lyons, N. Y.
- Hall Gillam Holder, A.B., 1920, Pomona College, Santee, Calif.

# STUDENT REGISTER.

|   |                                |
|---|--------------------------------|
| Evelyn Holt, A.B., 1919, Wellesley College, . . . . .                       | Summit, N. J.                  |
| Kiyoshi Hosoi, B.S., 1921, University of Hawaii, . . . . .                  | Honolulu, Hawaii               |
| Russell Hills Her, A.B., 1920, Cornell University, . . . . .                | Brooklyn, N. Y.                |
| Seth Ransom Jagger, A.B., 1921, Cornell University, . . . . .               | Flushing, N. Y.                |
| Louisa Edwina Keasty, A.B., 1919, A.M., 1920, Cornell University, . . . . . | New York City                  |
| Frank Everts Kellner, B.S., 1920, University of Washington, . . . . .       | Hamilton, Wash.                |
| Willis Sackett Knighton, A.B., 1920, Cornell University, New York, N. Y.    |                                |
| Tsae Ngoo Kwong, A.B., 1921, Cornell University, . . . . .                  | Shanghai, China                |
| James Rosario Lomauro, A.B., 1920, Johns Hopkins University, . . . . .      | Passaic, N. J.                 |
| William Michael Maloney, A.B., 1921, Cornell University, . . . . .          | Perth, Ont.                    |
| William Claire Menninger, A.B., 1919, Washburn College, . . . . .           | Topeka, Kans.                  |
| A. Lardner Moore, A.B., 1921, Cornell University, . . . . .                 | Mooresville, N. C.             |
| Z. Rita Parker, A.B., 1917, Syracuse University, . . . . .                  | Lakewood, N. J.                |
| Harry Sidney Pizer, B.S., 1917, M.S., 1918, Syracuse University, . . . . .  | Brooklyn, N. Y.                |
| Curtis Tuttle Prout, A.B., 1921, Cornell University, . . . . .              | Windham, N. Y.                 |
| Douglas Lee Root, A.B., 1921, Cornell University, . . . . .                 | Cooperstown, N. Y.             |
| Joseph Rosenheck, B.S., 1920, College of the City of New York, . . . . .    | New York, N. Y.                |
| Evarts Foster Sands, A.B., 1921, Cornell University, . . . . .              | Morrisstown, N. J.             |
| Grace Marie Santoro, A.B., 1921, Cornell University, . . . . .              | Waterbury, Conn.               |
| Paul Sylvester Seager, A.B., 1921, Cornell University, . . . . .            | Morrisstown, N. J.             |
| Robert Philo Shelton, A.B., 1919, Yale University, . . . . .                | Bridgeport, Conn.              |
| Alfred William Snedecker, A.B., 1921, Cornell University, . . . . .         | Staten Island, N. Y.           |
| Martha Chandley Souter, A.B., 1921, Cornell University, . . . . .           | Whitehall, N. Y.               |
| Leslie Ray Taber, Ph.B., 1919, Brown University, . . . . .                  | Auburn, N. Y.                  |
| Michael Martin Tetelman, B.S., 1918, New York University, New York, N. Y.   |                                |
| John Henry Trescher, A.B., 1921, Cornell University, . . . . .              | Jeanette, Pa.                  |
| William Henry Von Oehsen, A.B., 1921, Cornell University, . . . . .         | New York, N. Y.                |
| Stephen Weissberger, B.S., 1920, College of the City of New York, . . . . . | New York, N. Y.                |
| Walter Frederick Welton, A.B., 1919, Columbia University, . . . . .         | New York, N. Y.                |
| David Wexler, A.B., 1921, Cornell University, . . . . .                     | Brooklyn, N. Y.                |
| Annie Yoffa, A.B., 1921, Cornell University, . . . . .                      | Brunswick, Victoria, Australia |
| Frank Jacob Zitserman, A.B., 1920, Brown University, . . . . .              | Providence, R. I.              |

## FIRST YEAR.

|   |                 |
|---|-----------------|
| Stanton Tice Allison, A.B., 1921, Williams College, . . . . .           | Bryn Mawr, Pa.  |
| Nelson Sylvester Bigelow, B.S., 1920, Wesleyan University, . . . . .    | Moodus, Conn.   |
| George Birnbaum, B.S., 1921, College of the City of New York, . . . . . | New York, N. Y. |
| Sidney Brooks, A.B., 1918, New York University, . . . . .               | Paterson, N. J. |
| Harold Burg, B.S., 1921, College of the City of New York, . . . . .     | New York, N. Y. |

# CORNELL UNIVERSITY MEDICAL COLLEGE.

- Claire Colestock, A.B., 1913, Pennsylvania College for Women,  
New York, N. Y.
- William Thomas Daily, B.S., 1921, New York University.....Babylon, N. Y.
- William Courtney Douglass, B.S., 1921, Wooster College.....Shanghai, China
- Theodore Dunham, Jr., A.B., 1921, Harvard College.....New York, N. Y.
- Frederick Ebersson, B.S., 1912, College of the City of New York, M.S.,  
1915, Iowa State College, M.A., 1916, Ph.D., 1918, Columbia Uni-  
versity .....Brooklyn, N. Y.
- Ralph Augustine Eckhardt, University of Rochester\*.....Rochester, N. Y.
- Dennis Grooms Evans, A.B., 1920, Vanderbilt University....Tompkinsville, Ky.
- Walter John Farr, Cornell University\*.....Hoboken, N. J.
- Edmund Warner Fisher, Ch.E., 1918, Polytechnic Institute of Brook-  
lyn, A.M., 1921, Columbia University.....Brooklyn, N. Y.
- Elizabeth Frances Freeman, A.B., 1919, Wellesley College..West Orange, N. J.
- Marie Fuhrer Gregory, Barnard College\*.....New York, N. Y.
- Harry Hanfling, B.S., 1921, College of the City of New York..New York, N. Y.
- Linley Conrad Happ, A.B., 1921, Amherst College.....Port Jervis, N. Y.
- Harold Dewey Hayward, B.S., 1921, University of Washington,  
Ridgewood, N. J.
- James Frederic Hollister, Cornell University\*.....Saluda, N. C.
- Isidore William Jablonsky, Cornell University\*.....Brooklyn N. Y.
- Edward Jacobs, B.S., 1921, College of the City of New York..New York, N. Y.
- Lansing Herman Keeler, A.B., 1921, Amherst College.....Brooklyn, N. Y.
- William John Kenville, A.B., 1921, Manhattan College.....New York, N. Y.
- Francis Paul Kenney, A.B., 1916, Catholic University.....Pittsburgh, Pa.
- Stanton Knowlton Livingston, Columbia University\*.....Scarsdale, N. Y.
- Joe Carey Massee, Stetson University\*.....Brooklyn, N. Y.
- Alfred M. Michaelis, A.B., 1920, Columbia University.....New York, N. Y.
- Irving Wright Parkhurst, Cornell University\*.....Fair Haven, Vt.
- Thomas Main Proctor, B.S., 1919, Colgate University.....Waterford, N. Y.
- Ada Chree Reid, A.B., 1917, Barnard College.....Boonton, N. J.
- Walter Jessie Rollins, Massachusetts Agricultural College\*....Westminster, Vt.
- Abraham Arthur Rosenthal, A.B., 1921, Columbia University..New York, N. Y.
- Harry Shilkret, B.S., 1921, St. Lawrence University.....New York, N. Y.
- Oscar Salisbury Simpson, University of Maine\*.....Marlboro, Mass.
- Hyman Solovay, Cornell University\*.....Brooklyn, N. Y.
- Neil Charles Stone, B.S., 1921, University of Rochester.....Rochester, N. Y.
- Virginia Macqueen Travell, A.B., 1921, Wellesley College....New York, N. Y.
- William Henry Tregurtha, B.S., 1921, Union College.....Schenectady, N. Y.
- Frances Elizabeth Vosburgh, A.B., 1918, Vassar College....Voorheesville, N. Y.
- George Stanley Warner, Ph.B., 1920, Brown University.....Peterboro, N. H.
- Alice Dora Weber, Cornell University\*.....New York, N. Y.
- Thomas Joseph White, A.B., 1920, Fordham University.....Jersey City, N. J.
- Eske Harry Windsberg, Ph.B., 1921, Brown University....New Bedford, Mass.
- Chauncey Bechtle Wright, A.B., 1921, Johns Hopkins University,  
Ceredo, W. Va.
- James Fabian Zweighaft, Columbia University\*.....New York, N. Y.

\* Admitted under Clause II.



## STUDENT REGISTER.

### FIRST YEAR AT ITHACA.

|   |                     |
|---|---------------------|
| Walter Ing Akana, University of Hawaii*         | Honolulu, T. H.     |
| Alexander Barclay, Cornell University*          | Ardonia, N. Y.      |
| Walter J. Becker, Cornell University*           | New York City       |
| William Berman, Cornell University*             | Rochester, N. Y.    |
| Victor Blenkle, Cornell University*             | Jersey City, N. J.  |
| Knox Brittain, Cornell University*              | Downsville, N. Y.   |
| Katharine Brooks, A.B., 1920, Vassar College    | New Britain, Conn.  |
| Rebecca B. Carter, A.B., 1921, Vassar College   | Washington, Conn.   |
| James C. Carver, Cornell University*            | Ft. Dodge, Iowa     |
| Enid Crump, Cornell University*                 | New York, N. Y.     |
| Paul G. Culley, A.B., 1921, Cornell University  | Ithaca, N. Y.       |
| Carl H. Gans, Cornell University*               | High Bridge, N. J.  |
| Ellarene Hainsworth, Cornell University*        | Gloversville, N. Y. |
| Mary E. Heller, Cornell University*             | Williamsport, Pa.   |
| Edward K. Horton, Cornell University*           | Whitehall, N. Y.    |
| Juanita P. Johns, Cornell University*           | Ithaca, N. Y.       |
| Mary L. Lederer, Cornell University*            | New York City       |
| Merrill D. Lipsky, Cornell University*          | Somerville, Tenn.   |
| Dorothy Lottridge, Cornell University*          | East Orange, N. J.  |
| Irving H. Page, A.B., 1921, Cornell University  | Indianapolis, Ind.  |
| Lyndon A. Peer, Cornell University*             | Deal Beach, N. J.   |
| Melvin Preston, Cornell University*             | Utica, N. Y.        |
| Samuel Schwartz, B.S., 1921, Cornell University | Brooklyn, N. Y.     |
| William A. Shannon, Cornell University*         | Ithaca, N. Y.       |
| Walter P. Sherrill, Cornell University*         | Temple, Texas       |
| Preston A. Wade, Cornell University*            | Helena, Montana     |
| Albert J. Ward, A.B., 1921, Cornell University  | Ithaca, N. Y.       |
| William L. Watson, Cornell University*          | Pittston, Pa.       |
| Harold A. Wilson, Cornell University*           | Downsville, N. Y.   |

### Candidates for the Degree of Doctor of Philosophy.

|   |                  |
|---|------------------|
| Helen Jeanette Allen Behre, A.B., 1913, Vassar College              | Cincinnati, Ohio |
| Nathan Frank Blau, D.V.M., 1918, Cornell University                 | New York, N. Y.  |
| Morton Charles Kahn, B.S., 1916, Cornell University                 | New York, N. Y.  |
| Earl Albert Martin, A.B., 1914, A.M., 1916, University of Missouri, |                  |

Bethany, Mo.

|  |                       |
|--|-----------------------|
| Thomas Palmer Nash, Jr., A.B., 1910, A.M., 1911, University of North Carolina, |                       |
|  | Elizabeth City, N. C. |

### Candidates for the Degree of Master of Arts.

|  |                 |
|--|-----------------|
| Raymond Owen Hitchcock, A.B., 1920, Cornell University | Lyons, N. Y.    |
| Morris Hirsch Kahn, M.D., 1909, Cornell University     | New York, N. Y. |
| Abraham Moss, M.D., 1903, Cornell University           | Brooklyn, N. Y. |

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\*Admitted under Clause II.

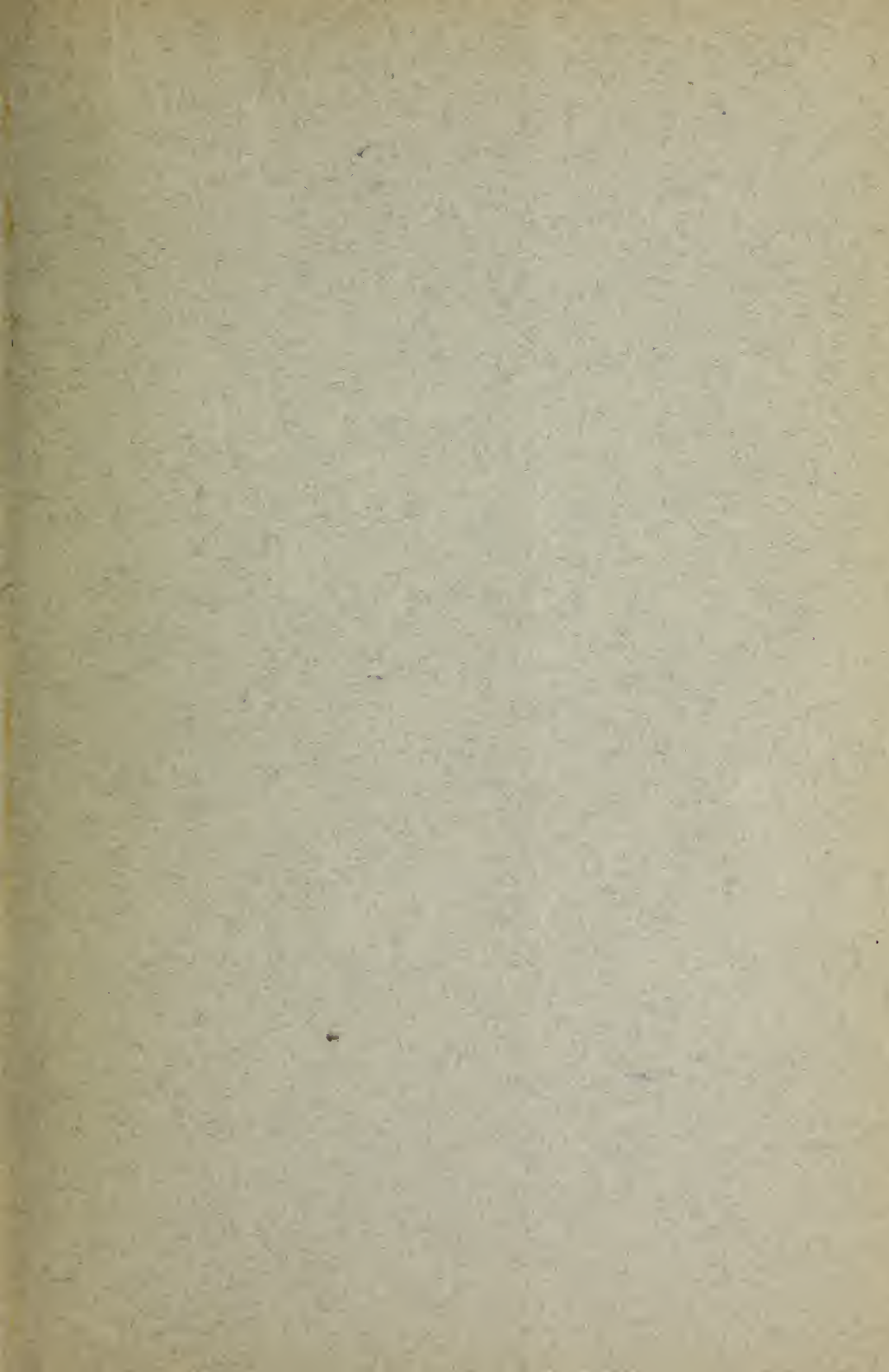
# CORNELL UNIVERSITY MEDICAL COLLEGE.

## Graduate Students (Not Candidates for a Degree)

|  |                          |
|--|--------------------------|
| Max Bakst, M.D., 1911, Long Island College Hospital (Anatomy),<br>Brooklyn, N. Y.                                    |                          |
| Clarence Edwin Boudreau, M.D., 1913, Columbia University (Surgery),<br>El Dorado, Kans.                              |                          |
| Joseph Edwin Conroy, M.D., 1918, Fordham University (Anatomy),<br>New York, N. Y.                                    |                          |
| George Washington Conterno, M.D., 1891, Long Island College Hospital<br>(Anatomy) .....                              | New York, N. Y.          |
| Hal McCluney Davison, A.B., 1911, Mercer University, M.D., 1915,<br>Emory University (Immunology) .....              | Atlanta, Ga.             |
| Gabriel Martin Nathaniel Fedde, B.S., 1908, St. Olaf College, M.D., 1912,<br>Cornell University (Bacteriology) ..... | Brooklyn, N. Y.          |
| David Gold, D.D.S., 1915, New York College of Dentistry (Anatomy),<br>Brooklyn, N. Y.                                |                          |
| Isidor Heller, M.D., 1913, College of Physicians & Surgeons, Baltimore<br>(Anatomy) .....                            | Brooklyn, N. Y.          |
| Emanuel Alex Henkle, M.D., 1899, Cornell University (Anatomy),<br>New London, Conn.                                  |                          |
| Elisabeth K. Lutikoff, 1914, University of Paris (Bacteriology), Brooklyn, N. Y.                                     |                          |
| Renichi Murano, M.D., 1919, South Manchuria Medical College (Pathology),<br>Yokohama, Japan                          |                          |
| John Selden Richardson, M.A., 1890, Randolph-Macon College, M.D.,<br>1893, Columbia University (Anatomy) .....       | New York, N. Y.          |
| Attilio Robertiello, Ph. Ch., 1912, M.D., 1917, Columbia University,<br>(Anatomy) .....                              | New York, N. Y.          |
| Francisco O. Santos, A.B., 1914, M.S., 1919, University of the Philippines<br>(Physiology) .....                     | Calumpit, Bulacan, P. I. |
| Robert G. Stewart, B.S., 1917, New York University, M.D., 1921, Cornell<br>University (Anatomy) .....                | Jersey City, N. J.       |
| Matthew Walzer, A.B., 1916, M.D., 1919, Cornell University (Bacteriology),<br>Brooklyn, N. Y.                        |                          |

|   |     |
|---|-----|
| Fourth Year .....                       | 43  |
| Third Year .....                        | 65  |
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| Candidates for the degree of M.D. ....  | 242 |
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